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Canadian Embassy

FINAL REPORT COVERING THE CONDUCT OF A
SITUATION STUDY ON THE PHILIPPINE MARKET
FOR HOSPITALS/ MEDICAL EQUIPMENT AND SUPPLIES



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EXECUTIVE SUMMARY

This report embodies the results of a situation study conducted by Joaquin Cunanan & Co. on the Philippine market for medical equipment and supplies. The study was undertaken for the Canadian Embassy consistent with its continuing efforts to promote trade between the Philippines and Canada and was performed with the two-fold objective of assessing the current market situation to determine its growth prospects within the foreseeable future term and identifying opportunities for market entry by prospective Canadian exporters.

The tasks involved an analysis of the current structure and profile of the market as well as its historical performance over the past five (5) years and the various government regulations and policies attendant to it. This served as the take-off stage for determining the existing size of the market for medical equipment and supplies.

Forecasts of demand magnitudes were developed on the basis of historical and anticipated behavior of the basic determinants of market demand, such as population and income growth rates. Finally, a set of key issues critical to market access are presented in summary version to aid prospective Canadian suppliers in formulating responsive strategies to penetrate the local market.

Market Profile

The market is heavily dependent on imported items for its medical equipment and supplies requirements, particularly on the equipment and instruments. Although the market continues to rely mainly on foreign sources for furniture and supplies, the presence of local production capability in this area has given the market self-sufficiency and even export capability in certain commodities such as wooden furniture, sterilized absorbent cotton, adhesive plasters for medical and surgical purposes, linens and textiles, false teeth and artificial dentures and bridges of any material.

Major country suppliers of medical equipment and instruments are the US, Japan and the EEC. These same countries are joined by South Korea and China (PROC) as the biggest exporters of medical supplies to the market.

Consequently, importers (agents and/ or distributors) play a dominant role in the distribution system. This group is complemented by local manufacturers who provide mainly simple, low-technology equipment instruments and supplies. Both groups are supported by local traders who perform "middlemen" roles.

Hospitals constitute the biggest group among end-users, accounting for about 90 % of the market's total consumption of medical equipment and supplies. Hospitals in the country are classified as either general or special. General hospitals provide the broadest range of medical care services, covering all organ groups. Special hospitals, on the other hand, specialize on a particular area or organ group such as the heart, kidney or lung.

Private hospitals are about twice as many as public hospitals but lag behind in terms of total bed capacity. Both acquire medical equipment and supplies through basically the same procedures except that the government directly intervenes in the distribution flow for public hospitals. Private hospitals conduct their own screening of and bidding among prospective suppliers while all equipment and supplies requirements of public hospitals are screened, monitored and controlled by the government through the Department of Health (DOH).

Tariff rates on imported medical equipment, instruments and supplies have been relatively stable from 1981 to 1988. Equipment, instruments and appliances have been imposed a duty of 10 % throughout the period while the tariff rate on medical supplies remained at 20 %. These tariff rates are more or less reflective of the government's recognition of the current status of local capability to manufacture these items. The tariff rate on imported medical equipment and instruments is relatively low as there are few local producers to protect. Medical supplies are charged a higher rate because local manufacturers have shown improving capability in supplying some of these items.

Demand Parameters

The demand for medical equipment and supplies is essentially a derived demand. Increased demand for medical care services effectively hastens the utilization rate of equipment and instruments as well as the consumption rate of medical supplies and consummables. Simultaneously, rising demand for medical care is likely to improve the financial status of hospitals and other health service units, other things being equal, and makes them more able and willing to upgrade facilities as well as equipment and instruments.

In essence, the need for medical care can well be considered as one of the basic needs of man. In the same line that a nation has minimum requirements for food, clothing and shelter in order to survive, a minimum level of medical care is required to address man's basic right for health. Population growth effectively raises this minimum requirement by actually increasing the number of persons that the entire health care system serves.

The impact of income changes on the demand for medical care varies at different income levels. Below the poverty line, an improvement in real income of an individual would typically have minimal effects on his demand for medical care because he still lacks the more basic requirements for food, clothing and shelter. Increases in real income beyond the poverty line would very likely cause proportionately higher increases in the demand for medical care.

Size of Market Estimates

The Philippine market now consumes about FOB US \$ 28 million worth of medical equipment and supplies annually. Medical supplies make up the bulk or 52 % of total consumption followed by equipment and instruments with 46 %. Furniture accounts for the smallest share of only 2 %.

The market is about 75 % dependent on foreign sources of medical equipment and supplies. Local manufacturers

provide only 25 % of total consumption. Equipment and instruments account for the biggest component (61 %) of the market's total requirements for imported items, although supplies make up a significant share of 32 %. Consumption of locally manufactured items consists mostly of supplies which account for over 97 %.

A potential demand-supply gap equivalent to over a million-dollar (US) worth of medical equipment and supplies exists in the market. This gap was computed based on a 4,000 bed deficit that the Philippine hospital care system incurred in 1987 vis-a-vis the hospital bed requirement of the population during that year. In essence, this demand-supply gap directly corresponds with the value of medical equipment and supplies that could have been consumed by the market last year had the capacity of the local health care system been adequate to serve the minimum medical care requirements of the population.

Size of Market Forecasts

While improvements in real income in recent years (1986 to 1987) may well be sustained in the short-term (1988 to 1990), prospects for the market to grow within this period depend much on population growth. Given the current income distribution structure in the country, this timeframe will not be long enough for the economy to haul the majority (around 69 %) of Filipino families beyond the poverty line.

The government, however, cannot be expected to respond fully to population growth pressures in the short-term because of its limited budget. As reflected in the government's budgets for 1988 and 1989, health service is not one of the more immediate concerns of the government.

In the medium-term (1991 to 1995), the market is projected to grow faster (3.0 %) than the population growth rate. During this period, the demand-supply gap in the health service sector will become so glaring that the government has to respond by putting up additional public health service units or by expanding existing hospital capacity. At the same time, sustained

improvements in real income would in all likelihood slowly gain impact on the demand for medical care, providing basis for the private health service units to grow. The long-term (1996 to 2000) is seen as the period when the market is growing fastest at an estimated annual rate of 5 %.

Within these timeframes, the market will remain to be heavily dependent on imported items. Such dependence is expected to remain concentrated on equipment and instruments throughout the projection period. Local capabilities to manufacture medical supplies and furniture are likely to gain ground over time, especially on items where the capital and technological requirements are relatively low.



SECTION A - INTRODUCTION

1. Existing Structure of the Philippine Health Care Industry

The Philippine market for hospital/ medical equipment and supplies represents just one integral segment of the entire local health care industry. By definition, this industry encompasses all sectors of the economy that "takes care" of the local population's health, whether it be physical, mental or otherwise. Among the other segments of this industry are the pharmaceutical and cosmetics sectors which are in themselves big industries.

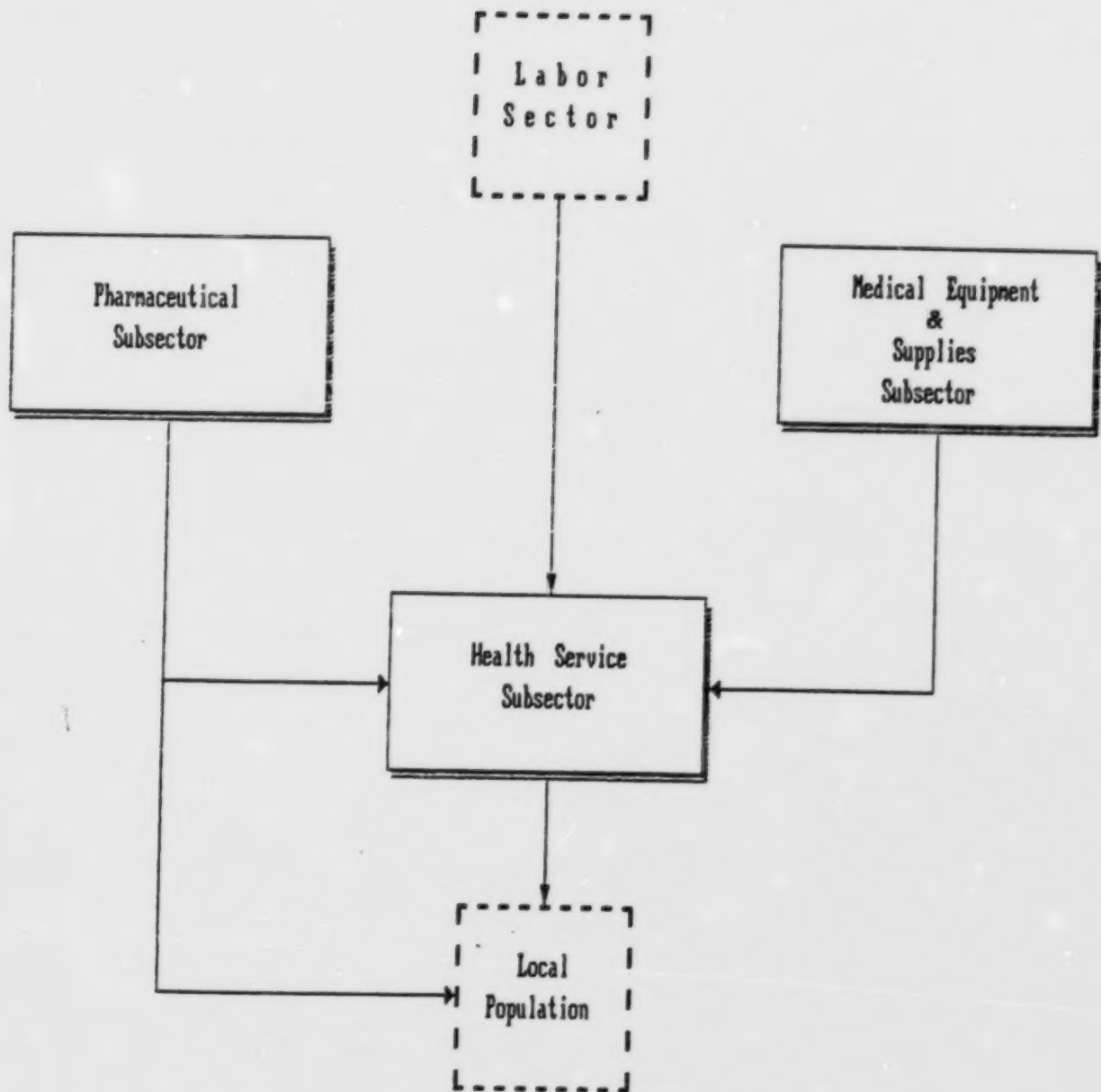
Figure 1 in the page following depicts how the various sectors that make up the entire health care industry are linked to serve the local populace.

Said diagram breaks up the industry into four (4) basic sectors. In essence, the medical equipment and supplies segment serves the local populace indirectly by providing the health service sector the equipment, instruments and supplies necessary to carry out their operations. Complementing these are the drugs/medicine and other health care products and supplies coming from the pharmaceutical and cosmetics sectors. Inputs from the labor sector provide the medical and paramedical manpower who are indispensable in the day-to-day operations of the various health service units in the country.

While serving the local population indirectly through the health service industry, the pharmaceutical and cosmetics sectors are also directly linked with the end-users by providing them "over-the-counter" drugs, medicine and other health care products and supplies.

Hospitals constitute the largest segment of the health service industry. There are about 1,814 hospitals operating in the country today, of which only about one-third or 624 are government-owned or operated and the rest are private. Although outnumbered almost two-to-one, government hospitals account for almost 55 per cent of the total bed

Figure 1



THE PHILIPPINE HEALTH CARE INDUSTRY AT A GLANCE

capacity of around 97,000 in 1987, an indication that these hospitals are, on average, relatively bigger than their private counterparts.

Other health service units include dental clinics, industrial diagnostic centers, physical/medical examination clinics, rural health centers, barangay health stations, sanitarium, chest clinics, family planning clinics, lying-in clinics, social and mental hygiene clinics, EENT clinics, etc. To date, the government operates around 15,000 such units distributed all over the country, with dental clinics as the most numerous. The population of similar health service units owned and operated by the private sector is estimated to be twice as big.

The medical equipment and supplies segment is made up of importers, agents, distributors, manufacturers and small traders. Although small traders dominate in terms of total population, a significant proportion of medical equipment/supplies requirements of the health service industry is supplied by importers/distributors which comprise the second smallest group in the sector in actual numbers. Manufacturers constitute the smallest number providing mainly simple medical furniture, instruments and appliances.

Medical personnel consists of physicians, nurses, midwives, dentists, pharmacists, sanitary inspectors and medical technologists. As expected, nurses make up the largest component, followed by midwives. Total population of physicians in the country today is estimated at 20,000, half of whom are under the employ of government health service units.

The government, through its various implementing agencies, monitors the flow of goods and services within the local health care industry to make sure that prescribed standards are complied with.

Total Philippine population is currently estimated at over 57 million and is expected to grow by 2.4 per cent annually from 1988 to 1992. Majority belong to the younger age groups; more than 50 per cent are

aged below 20 years and another 33 per cent belong to the 20 to 44 years age bracket. Of the thirteen regions in the country, the National Capital Region or Metro Manila and Region IV (Southern Tagalog provinces) are among the most populous.

2. Study Focus and Product Coverage

The schematic diagram depicted in Figure 1 distinguishes the medical equipment and supplies sector from the pharmaceutical sector. In medical parlance, however, the phrase "medical supplies" is meant to include surgical gloves, disposable needles and the like as well as drugs, medicine and other pharmaceutical supplies. This overlap may be traced to the fact that these goods are essentially complementary.

This study limits the Philippine medical equipment and supplies market to only two subsectors of the local health care industry, namely the health service subsector and the medical equipment and supplies subsector. The pharmaceutical and other health care products subsectors are, in effect, excluded from the study coverage.

Consequently, product scope consists only of items pertaining to these two subsectors, such as medical equipment, instruments, furnitures and supplies. In the conduct of the study, emphasis was given to items that go to the hospital care subsector, although the other segments of the health service industry were also covered. Items used in the conduct of R & D activities in the field of medical technology are excluded, although they easily qualify as medical equipment and supplies.

SECTION B MARKET PROFILE

1. Typical Composition or Product Mix

Hospital care is not only the most integral and vital form of health care, it is also the most expensive and visible element. People normally assess the status of the country's overall health care program based on the coverage, adequacy and quality of "health services" delivered by hospitals. The quality of hospital services is in turn measured in terms of its facilities, equipment, instruments, supplies and manpower.

Hospitals in the Philippines are basically classified as either general or special. General hospitals provide all medical services (or otherwise known as organ groups while special hospitals specialize only in one particular area or organ group. Examples of general hospitals are the Philippine General Hospital (PGH), Makati Medical Center and Polymedic General Hospital, among others.

Special hospitals include the Philippine Heart Center, Lung Center of the Philippines, Kidney Center of the Philippines, National Orthopedic Hospital. Also classified as special hospitals are those providing exclusive services for certain population groups such as the Philippine Children's Medical Center and Jose Fabella Memorial Hospital.

The various products that flow into the Philippine market for medical equipment and supplies can at best be categorized according to the different aspects or areas of hospital care service as shown in Exhibit I.

A separate category pertaining to veterinary equipment and supplies was added to take account of equipment normally used in animal health care.

Included in the list are those equipment and supplies used by special hospitals, whose areas of specialization or organ groups are not normally found in a general hospital, such as orthopedic

equipment/ supplies and population growth control devices and supplies. In health service areas covered by both general and special hospitals, e.g., cardiology, pulmonary care, urology, the list also includes those equipment, instruments, devices and supplies used by special hospitals in addition to those used by general hospitals in the same area or field of hospital service.

A detailed list of medical equipment could easily run to thousands of items and no effort was made to enumerate all these. Finally, the list also takes into account those items, majority of which are supplies, that are not readily classifiable, e.g., general hospital devices, tools instruments and supplies such as linens, bedpans and the like.

2. Dominant Market Players

Overall, the various players or constituents of the market are as follows:

- o on the supply side, the medical equipment and supplies sector consists of the importers/agents/distributors, local manufacturers/distributors, and traders (wholesalers and retailers);
- o on the demand side, the health service units which constitute the end-users such as hospitals, industrial diagnostic centers, clinics and laboratories; other end-users are the various medical schools and one medical research institute in the country.

As earlier stated, importers/distributors play a principal role in the supply side by providing the bulk (estimated at around 80 %) of medical equipment and supply requirements. Among this group, importers/agents which maintain distributorship agreements with foreign principals are at an advantage over those with no tie-ups. The former usually has superior after-sales capabilities because of a stable supply of equipment maintenance

parts and consumables as well as continuous training of service technicians and engineers.

Also playing a significant role in the supply side are the local manufacturers. This group, however, is engaged mainly in the manufacture and distribution of relatively simple, low-technology equipment and hospital furnitures.

Both groups are complemented by local traders in the distribution process, who perform "middlemen" roles.

On the demand side, the hospitals constitute the dominant force among end-users. This group is currently the biggest client of medical equipment and supplies distributors. General hospitals such as medical centers and regional/provincial hospitals utilize the broadest range of medical instruments and appliances while special hospitals are potent markets for specialized and highly advanced equipment and devices of varying type.

3. Foreign Trade Statistics

The National Statistics Office (NSO) is the government agency responsible for recording and monitoring foreign trade transactions in the country. This agency uses the Philippine Standard Commodity Classification (PSCC) Code in classifying import and export transactions with various countries. Although this code was formulated based on international trade standards prevailing in 1977 (the year a publication on foreign trade statistics first came out), its inherent incompatibilities with existing international trade classifications recently led to its revision. The improved version is now nearing completion and will be effected by the end of the year, out before the end of the current year.

In identifying commodity classifications in the PSCC Code) the various product categories listed in the Canadian brochure entitled "Health Care Products For World Markets" (published in 1986 to acquaint

foreign buyers with Canadian manufacturers of health care products) was used as guide.

The PSCC Code basically identifies two main divisions of medical equipment, instruments, appliances and their parts: electric apparatus for medical purposes and radiological apparatus, and; medical instruments and appliances not elsewhere specified (nes). Each main division is further subdivided into different product groups. Within each product group, the Code identifies specific items and then lumps the rest, or those which are not specified, into one item called "others" or nes.

Medical furniture appears as one of the subgroups within the main division of furniture and is broken down into specific items by make or composition, e.g., of wood or metal or plastic and/ or other materials, nes. Medical supplies are distributed over various divisions usually distinguished by composition or raw material used.

Exhibit II shows the various commodity classifications found pertinent to this study.

Overall, the PSCC Code does not provide as much details as desired (even relative to the classifications contained in the Canadian brochure) such that a foreign manufacturer/exporter is left wanting for more specific breakdowns, especially of commodities grouped under "others" or "nes". As confined within the NSO, the various classifications listed in Exhibit II are, nevertheless, mutually exclusive and hence do not allow for double-counting.

a. Imports

The Philippine health care system absorbs an annual average of US\$ 17.4 million worth of imported medical equipment, instruments, appliances, furnitures and supplies computed from 1983 to 1987. Total imports in 1987 was valued at US\$ 21.0 million which already represents 6.7

% decline from the peak level of US\$ 27.7 million in 1983. An upward trend was observed from 1985 to 1987.

As shown in Table 1, medical equipment/appliances and instruments make up the bulk of total imports, averaging about US\$ 10.6 million yearly. This is followed by medical supplies with an annual average of US\$ 6.4 million and medical furniture with US\$ 140,000 annually. All three major groupings registered negative compound growth rates throughout the study period despite an increasing trend during the last three (3) years.

Of the 64 commodity classifications listed in Exhibit I, Item 872.02-09 recorded the highest value both in terms of actual and annual average values (Table 2). This is not at all surprising because this item is actually a subgroup which embraces all items not elsewhere specified within the largest product group of "medical, surgical, and veterinary instruments (including ophthalmic instruments) and appliances (other than electromedical apparatus) and parts thereof".

Major country suppliers include the US, Japan and the European countries, notably UK and North Ireland and West Germany. These countries accounted for about 84 % of the country's imports of medical equipment and supplies in 1987 and about 75 % of total imports over the study period. These same countries provided the bulk of imported medical equipment/ instruments and appliances. For medical furniture and supplies, however, East Asian countries like Taiwan, China, Korea figured along with Japan as the biggest exporters to the Philippines.

The overall trend exhibited by the country's imports of medical equipment and supplies is suggestive of elasticity for such products relative to income. Economic instability triggered by political uncertainties during the

Table 1. Philippine Imports of Medical Equipment and Supplies By Main Product Groups in Value Terms
CIF Value in Million US Dollars, 1983 to 1987

Product Group	1983	1987	Annual Average	C G R (%)
1. Medical, surgical and veterinary instruments (including ophthalmic instruments) and appliances (other than electro-medical apparatus); parts thereof	10.3	8.8	7.1	-3.9
2. Wadding, gauze, bandages and similar articles, impregnated or coated with pharmaceutical substance or put up in retail packings for medical or surgical purposes	3.8	3.5	2.7	-2.0
3. Electric apparatus for medical purposes and radiological apparatus; parts thereof	4.5	2.6	2.1	-12.8
4. Other pharmaceutical goods ^{1/}	2.1	1.9	1.8	-2.5
5. Laboratory, medical, surgical, dental and hygienic glassware, whether or not graduated or calibrated; ampoules	1.5	1.3	1.1	-3.5
6. Hygienic, medical and surgical articles, of unhardened vulcanized rubber	1.8	0.8	0.8	-18.4
7. Dental instruments and appliances	1.5	0.6	0.7	-20.5
8. Mechano-therapy appliances, massage apparatus, artificial respiration, ozone therapy, oxygen therapy, aerosol therapy or similar apparatus, breathing appliances (including gas masks and similar respirators)	0.7	0.4	0.4	-13.1
9. Medical, dental, surgical, and veterinary furniture (e.g., operating tables, hospital beds with mechanical fittings); dentists' and similar chairs with mechanical elevating, rotating or reclining movements; parts thereof	0.8	0.5	0.3	-11.1
10. Clinical thermometers	0.2	0.3	0.2	10.7
11. Orthopedic appliances, surgical belts, trusses and the like; splints and other fracture appliances; artificial limbs, eyes, teeth and other artificial parts of the body; appliances which are worn or carried, or implanted in the body to compensate for a defector disability	0.4	0.1	0.1	-29.3
12. OTHERS ^{2/}	0.1	0.2	-	18.9
COMPOSITE	27.7	21.0	17.4	-6.7

^{1/}

This group contains the following items: sterile surgical catgut and similar suture materials; sterile laminaria and laminaria tents; sterile absorbable surgical hemostatics; opacifying preparations used in x-ray examinations and diagnostic reagents designed to be administered to patients; blood grouping reagents; dental cement and other dental fillings; first-aid boxes and kits.

^{2/}

This lumps together product groups that registered minimal figures, as follows: hygienic, medical or surgical articles (of iron or steel; of copper; of aluminum), whether enameled or not (bed pans, urinals, irrigators, instrument and catheter trays, pus and solution basin, infant baths, etc.); invalid carriages and; mobile radiological units.

Table 2. Top Imports of Medical Equipment and Supplies By Commodity, In Value Terms
CIF Value in Thousand US\$, 1983 to 1987

P S C C Code	1983	1984	1985	1986	1987	Annual Average	CGR (%)
872.02-09	9667.9	6656.9	4167.6	5070.4	8560.7	6824.7	-3.0
774.22-00	2964.5	1025.2	1255.9	460.5	2273.5	1595.9	-6.4
541.91-03	1666.5	843.5	374.3	739.3	1376.7	1000.1	-4.7
665.81-09	1195.1	624.3	533.7	785.9	1026.2	833.0	-3.7
541.91-01	922.2	426.0	515.0	810.6	909.3	716.6	-0.4
541.99-01	807.5	788.6	464.7	443.3	920.6	684.9	3.3
872.02-01	1528.3	444.3	281.9	465.3	595.9	663.1	-21.0
628.10-09	1245.3	250.2	253.7	466.9	512.3	545.7	-19.9
774.18-00	1454.9	389.3	225.8	165.6	313.0	509.7	-31.9
872.03-04	545.6	259.2	270.8	235.5	253.1	312.8	-17.5
821.21-03	489.9	6.9	67.6	36.2	500.1	220.1	0.5
874.54-01	226.1	125.4	205.3	133.6	250.9	188.3	2.6
665.81-01	213.5	140.8	122.8	184.1	276.5	187.5	6.7
872.02-02	270.9	209.8	41.9	46.5	133.5	140.5	-16.2
628.10-03	235.6	28.8	67.3	86.0	250.6	133.7	1.6

Source of basic data : NSO

period 1983 to 1985 caused declines in both levels of per capita and disposable income. With less income to spend, the average consumer's expenditures on all areas, including medical care diminished, translating in turn to a contraction of revenues and incomes generated by hospitals and other health service units. This effectively lessened the financial capability of health service units to upgrade/ modernize existing facilities or replace obsolete equipment and instruments. They were at the same time encouraged to exercise prudence on supplies consumption.

The political upheaval in early 1986 caused the economy to recover as evidenced by rising per capita income up to 1987. With minimized inflation during these years, the disposable income of the average consumer improved and so were his average expenditures on such essential items/ services as medical or hospital care.

b. Exports

Philippine exports of medical equipment and supplies totalled FOB US\$ 1.6 million over the study period, averaging slightly over FOB US\$ 300,000 annually (Table 3). Of the 12 commodity groups, only 6 items registered export figures in 1987 and even less in prior years. As shown in Table 4, most of these items recorded very minimal export levels.

Supplies dominated the country's exports accounting for about 82 % in 1986 or averaging almost US\$ 0.3 million a year from 1983 to 1987. Its biggest components are dental supplies (artificial teeth of all materials and artificial dentures and bridges of all materials) which comprised 74 % of total supplies export trade in 1987.

Exports of medical instruments are accounted solely by applicators and tounge depressors and averaged only US\$ 27,000 annually. Both medical

Table 3. Major Philippine Exports of Medical Equipment and Supplies, By Commodity and Major Product Division
In Value Terms (FOB US\$000), 1983 to 1987

	PSCC Code	1983	1984	1985	1986	1987	Total	Annual Average	C G R (%)
1. By Commodity	899.62-01	0.0	115.6	168.8	342.9	183.9	811.2	162.2	16.7
	628.10-03	87.1	66.7	121.1	21.6	67.0	363.5	72.7	-6.3
	899.62-02	0.0	4.7	110.4	139.1	21.7	275.9	55.2	66.5
	872.02-03	30.9	24.4	22.9	4.0	52.1	134.3	26.9	14.0
	541.91-01	0.2	0.9	1.7	7.4	1.4	11.6	2.3	62.7
	872.03-03	0.0	0.0	0.0	0.0	6.9	6.9	1.4	-
	541.91-03	0.0	0.0	0.0	0.0	2.0	2.0	0.4	-
	628.10-09	0.0	0.0	0.0	0.0	1.0	1.0	0.2	-
	821.21-12	0.0	0.0	0.0	0.0	0.9	0.9	0.2	-
	Others	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-
Composite		118.2	212.3	424.9	515.0	336.9	1,607.3	321.5	29.9
2. By Major Product Group		1983	1984	1985	1986	1987	Total	Annual Average	C G R (%)
o Supplies		87.3	187.9	402.0	511.0	277.0	1,465.2	293.0	33.5
o Instruments		30.9	24.4	22.9	4.0	52.1	134.3	26.9	14.0
o Equipment		0.0	0.0	0.0	0.0	6.9	6.9	1.4	-
o Furniture		0.0	0.0	0.0	0.0	0.9	0.9	0.2	-
Composite		118.2	212.3	424.9	515.0	336.9	1,607.3	321.5	29.9

Table 4. Philippine Exports of Medical Equipment and Supplies By Main Product Groups in Value Terms
FOB Value in Thousand US Dollars, 1983 to 1987

Product Group	1983	1984	1987	Annual Average	C G R (%)
1. Medical, surgical and veterinary instruments (including ophthalmic instruments) and appliances (other than electro-medical apparatus); parts thereof	30.9	24.4	52.1	26.9	14.0
2. Wadding, gauze, bandages and similar articles, impregnated or coated with pharmaceutical substance or put up in retail packings for medical or surgical purposes	0.2	0.9	3.4	2.7	103.1
3. Electric apparatus for medical purposes and radiological apparatus; parts thereof	-	-	-	-	-
4. Other pharmaceutical goods ^{1/}	-	-	-	-	-
5. Laboratory, medical, surgical, dental and hygienic glassware, whether or not graduated or calibrated; ampoules	-	-	-	-	-
6. Hygienic, medical and surgical articles, of unhardened vulcanized rubber	87.1	66.7	68.0	72.9	-6.0
7. Dental instruments and appliances	-	-	-	-	-
8. Mechano-therapy appliances, massage apparatus, artificial respiration, ozone therapy, oxygen therapy, aerosol therapy or similar apparatus, breathing appliances (including gas masks and similar respirators)	0.0	0.0	6.9	1.4	-
9. Medical, dental, surgical, and veterinary furniture (e.g., operating tables, hospital beds with mechanical fittings); dentists' and similar chairs with mechanical elevating, rotating or reclining movements; parts thereof	0.0	0.0	0.9	0.2	-
10. Clinical thermometers	-	-	-	-	-
11. Orthopedic appliances, surgical belts, trusses and the like; splints and other fracture appliances; artificial limbs, eyes, teeth and other artificial parts of the body; appliances which are worn or carried, or implanted in the body to compensate for a defector disability	0.0	120.3	205.6	217.4	19.6
12. OTHERS ^{2/}	-	-	-	-	-
COMPOSITE	118.2	212.3	336.9	321.5	29.9

^{1/}

This group contains the following items: sterile surgical catgut and similar suture materials; sterile laminaria and laminaria tents; sterile absorbable surgical hemostatics; opacifying preparations used in x-ray examinations and diagnostic reagents designed to be administered to patients; blood grouping reagents; dental cement and other dental fillings; first-aid boxes and kits.

^{2/}

This lumps together product groups that registered minimal figures, as follows: hygienic, medical or surgical articles (of iron or steel; of copper; of aluminum), whether enameled or not (bed pans, urinals, irrigators, instrument and catheter trays, p/s and solution basin, infant baths, etc.); invalid carriages and; mobile radiological units.

Source of basic data: NSO

furnitures and equipment registered minimal figures.

Top destination countries of said export items are the US, West Germany, and Canada, in that order.

The foregoing analyses clearly indicate that the Philippines is basically a net importer of medical equipment, instruments and supplies. While this is generally true, there are a few items which the Philippines supplies more than it buys from the international markets. These are dental supplies (artificial teeth and artificial dentures and bridges of all materials) and applicators and tounge depressors, both of which registered very minimal import figures. While exports of these items are not that substantial, this nevertheless suggests the existence of local capabilities in the manufacture of such items.

4. Local Production

The government uses a different classification system in recording and monitoring local production of goods and services. This classification system is embodied in the Product and Material Code which differs from the PSCC Code used in recording foreign trade statistics.

Production data is gathered and compiled by NSO from an annual survey of manufacturing establishments. Because of the leadtime required in conducting the survey and processing survey results, latest available data on local production pertain to 1986. Data for 1987 will be ready only by the middle of next year or 1989.

Total production over the study period was valued at ₱ 375.6 million, for an average of about ₱ 93.9 million annually. Peak level was in 1986 at ₱ 130.7 million which constitutes a compound annual growth rate of almost 20 per cent from the 1983 level of only ₱ 46.1 million (Table 5).

Supplies make up the bulk of total production, accounting for over 95 per cent and averaging over

Table 5. Value of Local Production of Medical Equipment and Supplies, In Thousand Philippine Pesos
Actual (1983 to 1986) and Projected (1987)

Commodity	1983	1984	1985	1986	TOTAL	Annual Average	CGR (%)	1987	
								Pesos	US\$ ^a
1. Absorbent cotton, sterilized	22,250.1	40,786.3	24,783.5	44,405.4	132,225.3	33,056.3	25.9	55,906.4	2,727.1
2. Adhesive plaster tape, medicated	0.0	0.0	0.0	10,009.2	10,009.2	2,502.3	-	10,009.2	488.3
3. False teeth	0.0	0.0	5,813.0	7,298.7	13,111.7	3,277.9	25.6	9,167.2	447.2
4. Surgical sterilizer	0.0	0.0	544.3	745.0	1,329.3	332.3	35.6	1,037.3	50.6
5. Incubator, electric	0.0	0.0	260.0	466.0	726.0	181.7	78.7	832.7	40.6
6. Wheelchair	87.7	0.0	18.5	297.9	404.1	101.0	50.3	447.7	21.8
7. Stretchers, metal	89.0	76.7	30.0	111.2	307.7	76.9	7.7	119.8	5.8
8. Hospital bed	1,373.0	1,533.8	702.3	221.5	3,830.6	957.7	-45.6	120.5	5.9
9. Medical instruments, except x-ray	0.0	0.0	55.2	108.0	163.2	40.8	95.7	135.1	6.6
10. Electro-medical apparatus and instruments	92.9	0.0	51.5	75.3	219.7	54.9	-6.8	70.2	3.4
11. Dental cabinet	0.0	0.0	0.0	37.4	37.4	9.4	-	37.4	1.8
12. Table, medical or surgical	803.8	153.4	211.1	27.3	1,195.6	298.9	-67.6	8.8	0.4
13. Furniture, special medical and dental	4.4	153.4	79.1	29.9	266.8	66.7	89.4	56.6	2.8
14. Other surgical, medical, dental and orthopedic equipment, not elsewhere classified	836.5	2,231.0	886.8	713.0	4,667.3	1,166.8	-5.2	675.9	33.0
15. Other orthopedic, surgical and medical supplies, not elsewhere classified	50,568.8	68,032.3	22,391.6	66,007.0	207,079.7	51,769.9	9.3	72,233.1	3,523.6
 COMPOSITE	 76,106.2	 112,966.9	 55,048.5	 130,452.8	 375,574.4	 93,893.6	 19.7	 150,858.0	 7,358.9

^a Exchange rate used is US\$ 1 = 20.5 Pesos

P 94 million annually. Among medical supplies, sterilized cotton ranks first, followed by false teeth and adhesive plaster tape.

Local production data more or less confirms (or agree with export statistics) presented earlier. Among the biggest items is code 3404049 described as false teeth, which is also the single biggest export item (Table 4).

Other items include wheelchairs, stretchers, hospital beds, surgical sterilizers, electric incubators, surgical or medical tables, and dental cabinets. This further supports our observation as stated before that the present capabilities of our local manufacturers are limited to relatively simple equipment and instruments and focus mainly on hospital furniture.

SECTION C - MARKETING/ DISTRIBUTION SYSTEM

1. Distribution Flow

Figure 2 shows in schematic view the basic flow governing the distribution system in the Philippine market for medical equipment and supplies and how the different market players interact in such market.

Said figure highlights the basic difference between private and government-owned or controlled end-users of medical equipment and supplies. Although the government, through the Department of Health (DOH) and the Bureau of Food and Drugs (BFAD), impacts on both distribution systems, its role in the former parallels that of a regular monitoring agency which simply requires registration and issues certificates to entities involved in the business. In contrast, the government takes on a very active role in the latter system through direct involvement in the procurement of medical equipment, instruments and supplies for public health service units.

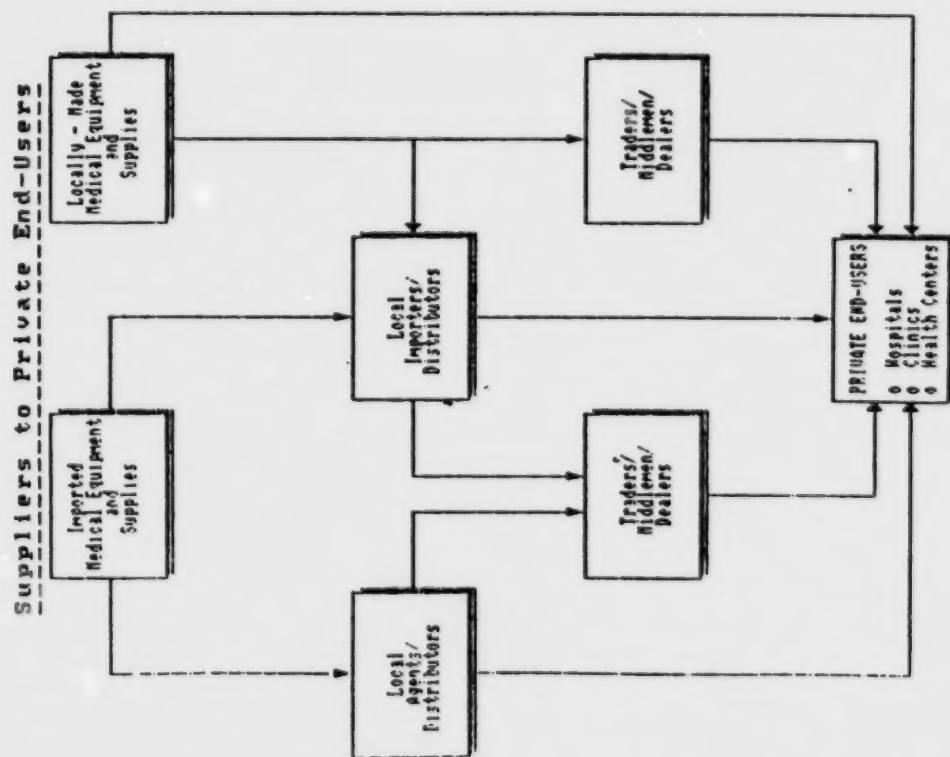
Importers provide the crucial link between foreign manufacturers or exporters of medical equipment and supplies and the local market, thus becoming the dominant player on the supply side. In this group, direct importers or agents enjoy the strongest influence on supply patterns and practices.

Local manufacturers and traders play supportive roles in the distribution system. The former provides mainly medical supplies such as sterilized cotton, adhesive plaster and false teeth and relatively simple equipment and instruments. Wholesalers and retailers that comprise the latter group serve as conduits to trade, catering mainly to the needs of health service units which importers, agents and distributors and local manufacturers cannot otherwise penetrate.

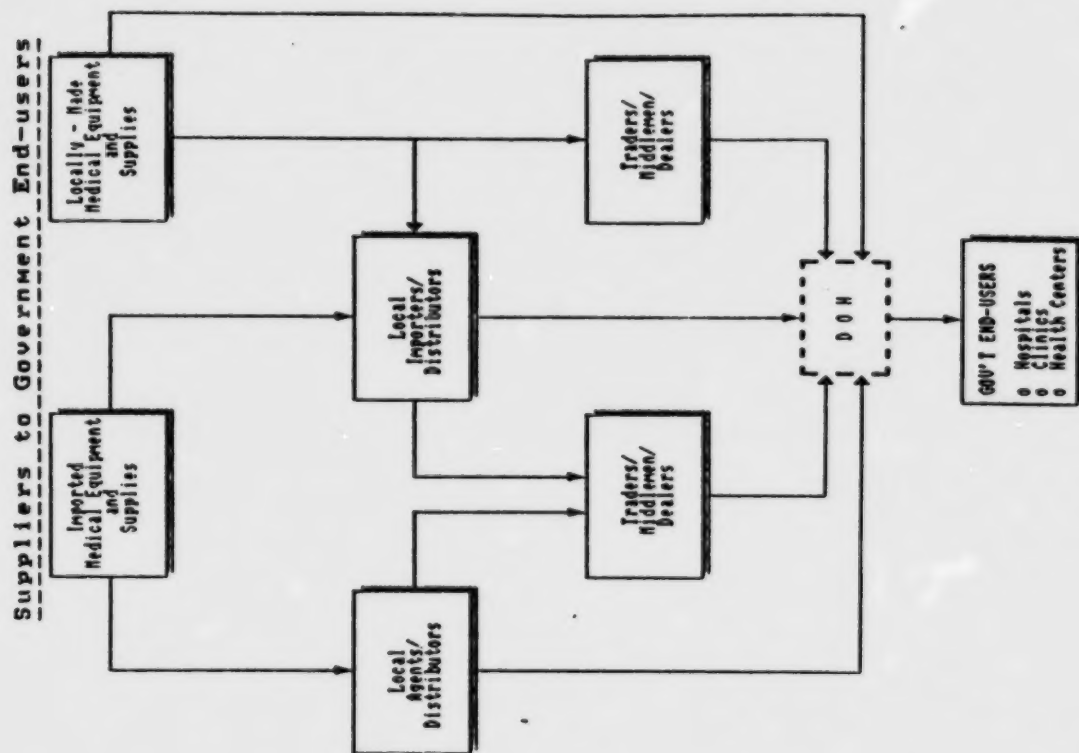
Under the end-user group, hospitals are easily the most prominent, serving as the biggest clientele of distributors. Most hospitals deal directly with

Figure 2. Distribution Flow Chart of Health Care Equipment, Instruments and Supplies

(a)



(b)



importers or agents, especially those located in the urban centers where majority of distributors are conveniently based. Hospitals operating in the provinces and far-flung areas, especially the small ones, source their requirements through small traders.

Clinics represent the small health service units distributed all over the country and are also classified as either public or private. Among this group are the industrial diagnostic centers, all of which are private entities engaged mainly in laboratory and medical examination services. These health service units usually abound in urban centers catering mostly to the needs of large business concerns.

Private-owned clinics, mostly small also proliferate in urban areas. In the countryside, public health service units serve most of the medical care needs of the people. A rural health center is usually installed within each municipality while a barangay health station is normally assigned to each barangay.

Overall, the same basic distribution flow governs public and private end-users. Government intervention in the latter system may well be justified, but its main effect is that it slows down the whole process for the public end-users which constitute about 50 per cent of the total bed capacity in the country. As it is, this policy may be viewed as more of a safety measure to discourage graft and corruption than a tool for improving efficiency in the local health care system.

It is a common observation in the hospital care business that government hospitals lag behind their private counterparts in such aspects as facilities, equipment, instruments and supplies, the former having to live with obsolete ones.

2. Profile and Distribution Practices of Individual Market Players

a. Importers/ Distributors

This group serves as the vital channel through which imported medical equipment and supplies reach the local market. Based on the results of the survey conducted among end-users it is estimated that, on average, about 80 % of the medical equipment and supplies used by a typical Philippine hospital are imported. Indeed, importers or distributors play a crucial role in the distribution process by way of linking up the local hospital/ medical care industry with foreign suppliers and helping promote technology transfer.

Importers or distributors make up a relatively small component of the total population of suppliers of medical equipment and supplies in the country. Of the total number of respondents to a survey conducted by the Department of Trade and Industry (DTI) among establishments engaged in the medical equipment and supplies business, only about 14% (or 10 out of 73 respondents) were importers. Manufacturers are even less or just 11%. The bulk (or about 75 %) are "buy-and-sell", traders consisting of small wholesalers and retailers (Please see Exhibit III).

The proliferation of unscrupulous dealers in the business who either sold substandard products and/ or have failed to deliver the necessary after-sales service support presents some problems to the legitimate suppliers. In October 1981, a group of nine (9) importers of hospital, medical and laboratory equipment and supplies saw the necessity and importance of forming an organization to police their own ranks and to prevent the entry of more "fly-by-night" traders who were damaging the industry's overall reputation.

Today, the association, called Hospital, Medical and Laboratory Equipment and Supplies Importers' Association of the Philippines (HOMLESIAP), Inc., has 22 member-firms which are all major importers of

medical equipment and instruments, hospital supplies and consumables, medical diagnostic instruments, laboratory chemicals and supplies, process control instruments and laboratory equipment and instruments. Exhibit IV lists these member firms and their respective product lines in directory form.

All HOMLESIAP member firms maintain distributorship agreements or contracts, most of which are exclusive, with foreign manufacturers and/ or suppliers of medical equipment and supplies, virtually making them sales agents. In addition, all firms have after-sales service capabilities and employ a number of service technicians/ engineers. Majority of importers keep inventory stock although on specific items only. Equipment and instruments, especially the more expensive ones, are normally sold on indent basis while medical supplies, equipment parts and simple instruments are handled on ex-stock basis.

Suppliers in general offer COD, 30-day and 60-day payment terms. COD is normally offered for fast-moving items such as medical supplies (e.g., disposable gloves) and consumables (e.g., laboratory reagents) while 30-day settlement is common for instruments such as stethoscopes, retinoscopes and fetal monitors.

A longer payment period is allowed for medical equipment and appliances. Depending on the equipment cost, payment terms normally range from 60 days to one year, although suppliers also provide installment arrangements for as long as two (2) years on a case-to-case basis (e.g., for very costly items).

The package also includes a warranty period ranging from 60-days to one-year offered for instruments and equipment. This warranty covers repairs and maintenance, including parts replacement on account of the supplier. For equipment that need to be installed, e.g., X-ray equipment, the installation cost is also normally shouldered by the supplier. In addition, it is standard practice for the supplier to train end-user's staff on the proper use and care

of the purchased equipment, especially if this is new or only recently introduced in the local market.

Selling efforts of importers/ distributors/ suppliers normally consist of:

- o applying for and renewal of required accreditation with the DOH and private end-users;
- o participating in biddings conducted by these end-users;
- o submitting brochures and other paraphernalia about their products; and
- o conducting demonstration activities to end-users.

Because buyers place great importance on the after-sales capabilities of suppliers, middlemen (importers, agents, distributors) see to it that their existing distributorship agreements with foreign principals include a standing arrangement to the effect that the latter would be providing technical training to the former's technicians/ engineers, as well as equipment/ instrument parts and consummables.

b. Manufacturers/ Distributors

It was noted earlier that the present capabilities of local manufacturers of medical equipment and supplies are limited to the manufacture of relatively simple and inexpensive items. These items consist of hospital beds and wheelchairs, mostly wooden and without mechanical fittings, medical cabinets and other simple hospital furniture and tools such as bedpans, urinals, irrigators, medical trays, medical and surgical tables. As reflected in Table 4, among the simple equipment now manufactured by local producers are electric incubators and surgical sterilizers. False teeth emerged as the second biggest item among medical supplies produced in the country in 1986.

The population of local manufacturers is also small. This is perhaps due to the scarcity of biomedical

engineers in the country. Although technology transfer is one of the objectives of HOMLESIAP, Filipino service technicians functions essentially as service technicians. A list of selected local manufacturers of medical equipment and supplies is presented as Exhibit V.

Based on the survey conducted involving users of medical equipment and supplies, we gather that a local garments and textiles manufacturer has succeeded in becoming the exclusive supplier of sheeting materials (bedsheets and the like), dressings, uniforms, linens and similar items to both government and private hospitals. This indicates the presence of local capabilities in the manufacture of such items.

Very little information has been gathered about local manufacturers of medical equipment and supplies. Most of the few firms which identified themselves as manufacturers in some directories and membership listings turned out to be not really manufacturers. Suffice it to say that the local manufacturer of medical equipment and supplies is still in the backyard stage and prospects in the horizon are not that bright.

c. Traders (Wholesalers and Retailers)

Playing a supporting role to middlemen are the traders consisting of wholesalers and retailers. These traders are essentially small firms that serve as conduits between importers and relatively small end-users such as private medical and dental health units. It is important to note that there are no more than thirty (30) legitimate importers (as estimated by industry representatives) serving the entire country and these importers are all based in the National Capital Region or Metro Manila without provincial or countryside outlets. Understandably, there exists a gap between importers/ distributors and small end-users, especially those in the provinces, and it is essentially this gap that these small traders attempt to satisfy.

To illustrate how small these traders are, of the 55 identified in Exhibit III, over 50 % (or 28 out of 55) have capitalization of P 50,000 or less, some having as low as P 10,000 to P 40,000. Further, of the 73 firms listed in said exhibit, only about 10 have capitalization of P 500,000 or over. In most cases, these wholesalers and retailers do not trade medical equipment and supplies alone.

Being conduits to trade, these wholesalers and retailers offer the same selling package as those provided by importers or distributors with added mark-ups. It was also gathered that these small trading firms also operate as service outlets but still depend on the importers/ distributors for parts and technical training of service personnel.

d. Hospitals (Private)

Private hospitals in the country acquire their respective equipment and supply requirements through public biddings. For this purpose, a hospital usually maintains a list of accredited suppliers and also accepts applications for accreditation on a continuing basis. When the need arises, the hospital contacts these suppliers and invite them to participate in the bidding. The winning bid is selected on the basis of the lowest responsible-bid criterion, i.e. the lowest bid among those suppliers with established track record in terms of product quality and after-sales service.

Although private hospitals in Metro Manila are equipped with relatively modern facilities as compared to those based in the provinces, Philippine hospitals generally practice "rebuilding" or "overhauling" when upgrading their premises. This is usually done in the case of highly expensive equipment. Instead of replacing the equipment, a hospital calls on the services of its supplier to rebuild or overhaul the depreciated equipment. While this practice is more common to small hospitals operating in the provinces, medical centers in Metro Manila are said to have similarly engaged in this practice.

For bulk purchases large hospitals in Metro Manila agree to open the required letters of credit (LCs) for their importers/ suppliers. This is usually done by hospitals when conducting a major equipment upgrading or modernization effort which does not often happen.

e. Industrial Diagnostic Centers

Industrial diagnostic centers have basically the same procurement practices as private hospitals in the country. While these clinics also conduct biddings among suppliers, such biddings are commonly conducted during the setting up stage. Upgrading of existing equipment and instruments are done gradually and is thus coursed through small traders. In addition, these clinics also practice rebuilding for depreciated equipment.

f. Government Hospitals and Clinics

The distribution practices of these market players are discussed in the following subsection.

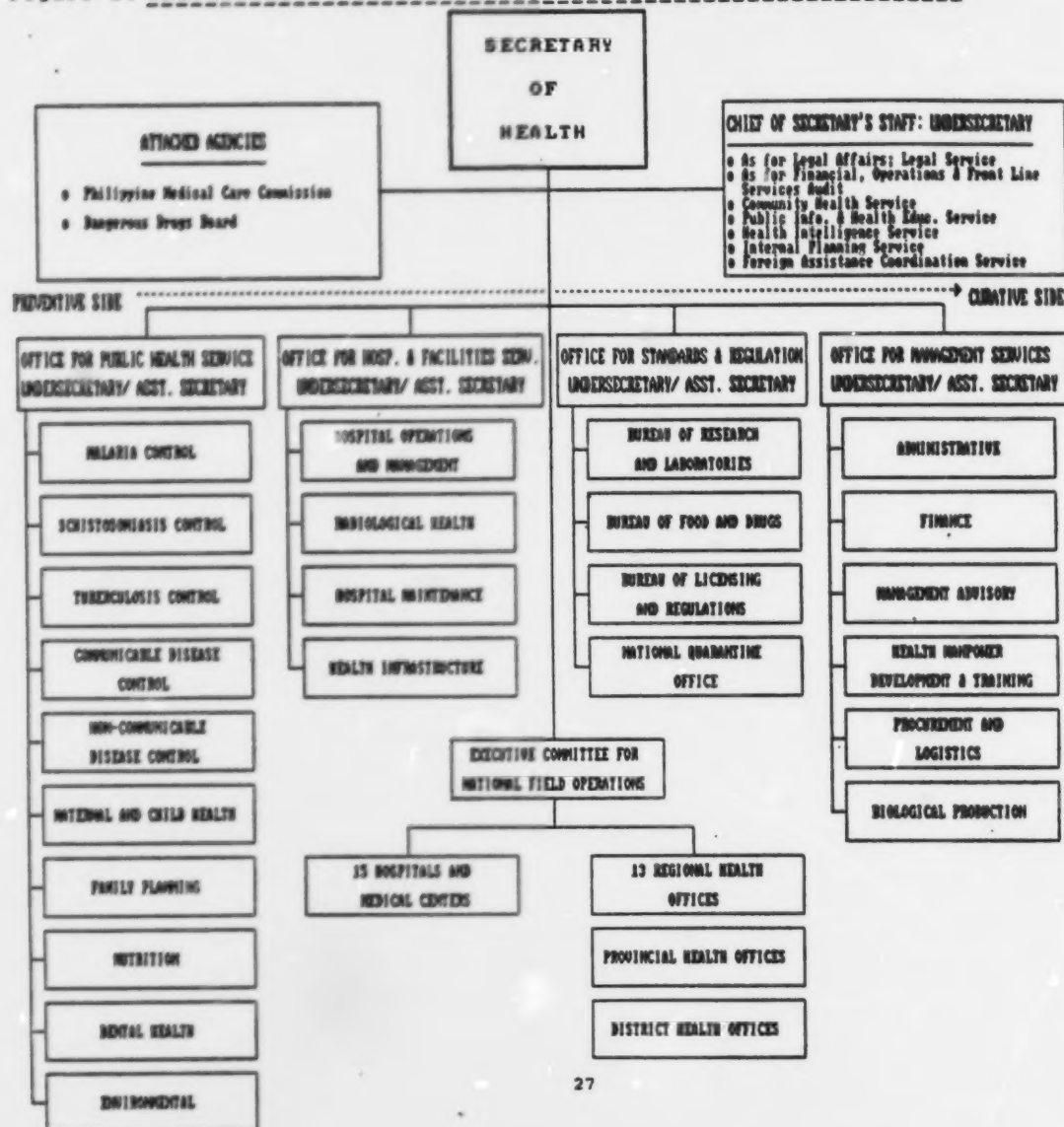
3. Government Regulations Affecting the Local Market .

As depicted in the distribution flow chart (Figure 2), the government through its various agencies act as a screen before imported and locally-made medical equipment and supplies finally get to the end-users. Executive Order 119 entitled "Reorganizing the Ministry of Health, Its Attached Agencies and for Other Purposes" dated January 30, 1987 empowered the Department of Health (DOH), among other powers and functions to:

"Regulate the operation of and issue licenses and permits to government and private hospitals, clinics and dispensaries, laboratories, blood banks, drugstores and such other establishments which by nature of their functions are required to be regulated by the Department."

The organization structure of the DOH is presented in a schematic diagram as Figure 3.

Figure 3. ORGANIZATION STRUCTURE OF THE DEPARTMENT OF HEALTH (DOH)



The DOH now operates a conglomerate of 537 government hospitals and other health care units with a total bed capacity of 40,359. These hospitals and health care units are classified and broken down as follows:

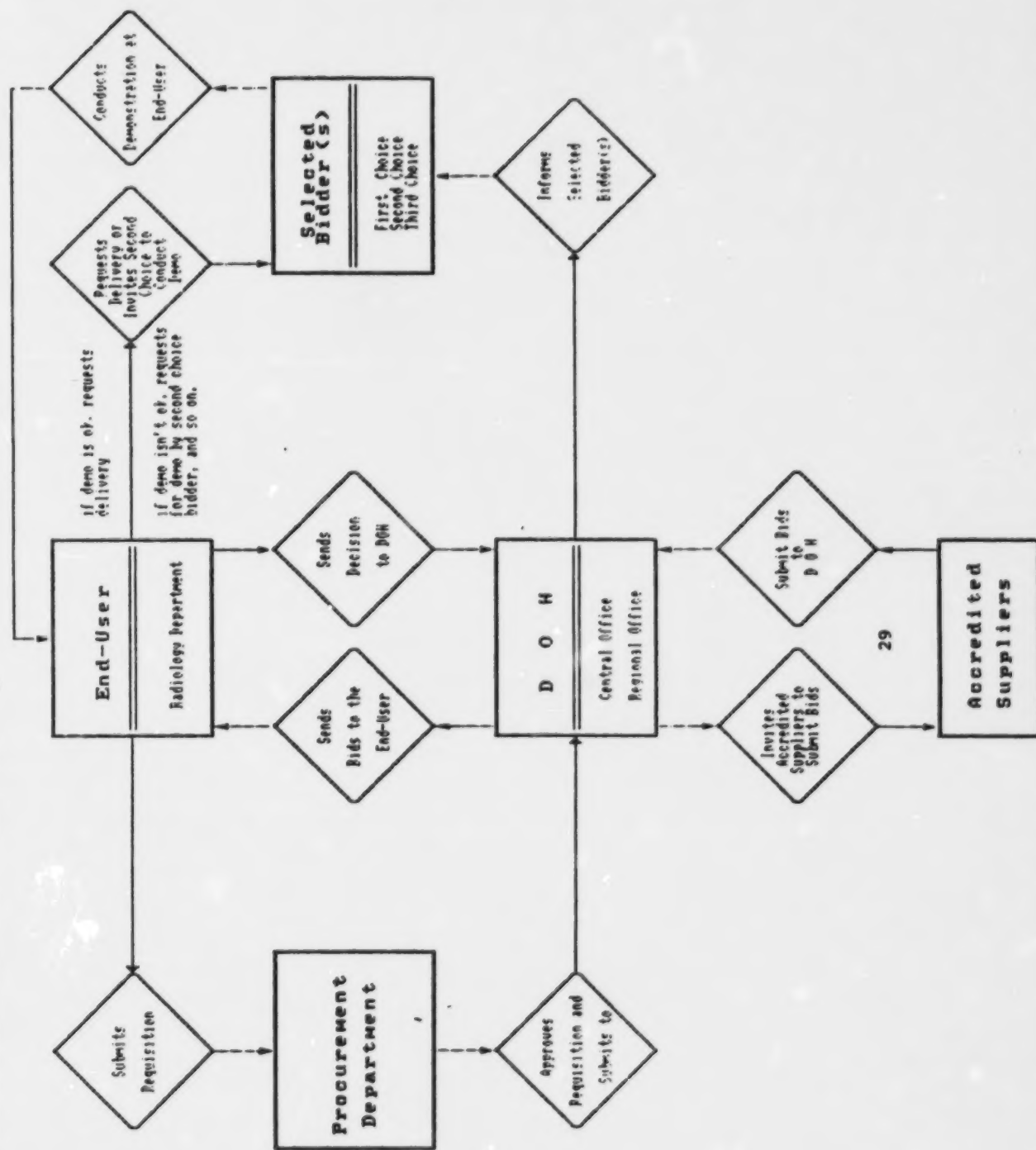
o high specialty hospitals	4
o special hospitals	5
o medical centers	8
o regional hospitals	14
o provincial hospitals	77
o district hospitals	272
o sanatoria	8
o municipal hospitals	61
o medicare community hospitals	87
o research institute	1

Total	537
	===

Existing government regulations, policies and procedures affecting the distribution flow of medical equipment and supplies in the market are enumerated and discussed below.

- o All requirements of government hospitals and health care units for medical equipment and supplies are screened, monitored and controlled by the DOH through its central and regional offices. These offices receive all requisitions for medical equipment and supplies made by government end-users and conduct public biddings among accredited suppliers. Figure 4 shows the process flow involved in the acquisition of medical equipment and supplies by government-owned or controlled hospitals.

Figure 4 Procedural Flow Covering the Acquisition of Medical Equipment and Supplies By Government Hospitals and Other Public Health Service Units in the Phils



As reflected in Figure 4, a request for acquisition comes from a specific hospital usually referred to as department end-user. An end-user, e.g., radiology department, specifies in this request equipment type it needs and states the reason for such request. The requisitions coming from various end-users are then submitted to the hospital's procurement office for approval. Approved requisitions are then submitted to either the concerned DOH Regional Office or the Central Office, whichever is appropriate. This office then conducts public biddings among its roster of accredited suppliers. All submitted public bids are then sent to the specific end-user who requisitioned the equipment. Award of bids is normally based on the "lowest responsible bid" principle.

Only DOH-accredited suppliers are qualified to join the biddings. For this reason the DOH Central and Regional Offices maintain a list of their respective accredited suppliers and constantly receive and process applications for and renewal of accreditations.

There are basically two (2) types of accreditation: Central Office Accreditation entitles accredited suppliers to join biddings conducted at the DOH Central Office and to serve all DOH agencies nationwide; on the other hand, Regional Accreditation allows accredited suppliers to serve all DOH agencies nationwide but not to participate in biddings conducted at the DOH Central Office. Exhibit VI provides general information on the rules and regulations, policies and procedures as well as requirements and criteria for evaluation of application for each of these types of accreditation.

For suppliers of hospital, laboratory, medical or dental supplies, among the requirements for accreditation are a valid license to operate from the Bureau of Food and Drug (BFAD) and valid product registration with the same agency

for each item carried for sale. BFAD requires product registration for each of the following items carried for sale by the supplier (Table 6).

As of end of 3rd quarter 1988, the DOH accredited suppliers of medical equipment and supplies and service/ equipment maintenance outlets totalled to 163. Of these, 98 or over 60% are distributors of medical suppliers, 52 or 32% are equipment suppliers and 13 or almost 8% are service outlets. Exhibit VII presents a list of selected accredited firms in directory form.

- o The DOH conducts regular evaluation of both private and government hospitals to make sure that these health care units comply with the minimum requirements on staffing, physical plant, equipment and instruments and operations. Hospital standard minimum requirements for technical equipment and instruments are presented as Exhibit VIII.
- o The DOH through its Radiation Health Service (RHS) regulates the production, import and export of radiation - emitting apparatus, as well as non-ionizing radiation devices. Donated equipment capable of emitting radiation are released only after an evaluation is done on the documents covering the equipment. The RHS also conducts regular inspection of such equipment and apparatus installed in private and government health premises.
- o Tariff rates on imported medical equipment, instruments and supplies have been relatively stable from 1981 to 1988. As shown in Table 7 in the page following, medical equipment, instruments and appliances are imposed a duty of 10 % throughout the period while the tariff rate on medical supplies remained constant at 20 %. These rates are more or less reflective of the government's recognition of the necessity of these products to nation's health and its assessment of the current status of the market, i.e., medical equipment and instruments in which

Table 6. List of Hospital/Laboratory/Medical/Dental Supplies Which Require Product Registration

Absorbent Cotton	Peritoneal Dialysis Administration Set
Cotton Buds	Stomach bag
Cosmetics Puffs Cotton	Stomach Tube
Cotton Swabs	Water Bag
Wooden Applicator Stick	Urine Collecting Bag
Gauze	Oxygen Mask
Elastic Bandage	Rectal Tube
Bandage (Plaster of Paris)	Nasal Oxygen Cannula
Rubber Elastic Bandage	Urethral Catheter
Synthetic Cast Padding	Suction Catheter
Cervical Collar Cast (Orthoplast)	Oxygen Catheter
Corset Cast	Urinary Drainage Tube
Plaster	Feeding Tube
Band-aid Plastic Strip	Endotracheal Tube
Hypoallergenic Paper Tape	Nebulizer with Aerosol Mask
Syringes	Humidifier Mask
Disposable Needles	Intrauterine Device (IUD)
Surgical Blade	Condom
Surgical Gloves (Sterile)	Earpiercing Device
Sutures	Porcine Heart Valve
Infusion Set or Venoset	Intraocular Lenses
Arterial Venous Fistula Needle Set	Hard and Soft Contact Lenses
Scalp Vein Transfusion Set	Disposable Skin Stapler
Blood Transfusion Set	Disposable Skin Staple
Filter Set	Ligating Clip Device
Exchange Transfusion Tray	Skin Traction Kit
Spinal Anesthesia Tray	Contamination Control Dry Mat
Lumbar Puncture Tray	Dental Floss
Dental Filling Alloy	Collagen Implant
Absorbable Hemostatic Felt (Collagen Fabric)	Flour Alloy Amalgam
	Periodontal Bone Grafting Implant
	Disposable Tissue Measuring Device

Source : Committee on Suppliers' Accreditation, D O H

Table 7. Tariff Rates on Imported Medical Equipment, Instruments and Supplies
1981 to 1988, In Per Cent

Description	1981	1982	1983	1984	1985	1986	1987	1988
1. Medical, dental, surgical and veterinary instruments and appliances (including electro-medical apparatus and ophthalmic instruments)								
a. Electro-medical apparatus	10	10	10	10	10	10	10	10
b. Dental instruments and appliances	10	10	10	10	10	10	10	10
c. Others	10	10	10	10	10	10	10	10
2. Mechano-therapy appliances; massage apparatus; psychological aptitude-testing apparatus; artificial respiration, ozone therapy, oxygen therapy, aerosol therapy, or similar apparatus; breathing appliances (including gas masks & similar respirators)	10	10	10	10	10	10	10	10
3. Orthopedic appliances, surgical belts, trusses and the like; splints and other fracture appliances; artificial limbs, eyes, teeth and other artificial parts of the body; hearing aids and other appliances which are worn, carried or implanted in the body to compensate for a defect/disability								
a. Hearing aids	10	10	10	10	10	10	10	10
b. Others	10	10	10	10	10	10	10	10
4. Apparatus based on the use of x-rays or of radiations from radioactive substances (including radiography and radio-therapy apparatus); x-ray generators; x-ray tubes; x-ray screens; x-ray high tension generators; x-ray control panels and desks; x-ray examination or treatment tables, chairs and the like	10	10	10	10	10	10	10	10
5. Wadding, gauze, bandages and similar articles (for example, dressings, adhesive plasters, poultices), impregnated or coated with pharmaceutical substances or put up in retail packings for medical or surgical purposes	20	20	20	20	20	20	20	20
6. Other pharmaceutical goods	10	10	10	10	10	10	10	10

Source : Tariff Commission

our local producers have no capabilities to produce are charged a lower rate than supplies where the industry has shown some potentials.

It was gathered in the survey that the Philippine Hospital Association (PHA), a national association of hospitals is currently lobbying for a policy of tariff-free importation for medical equipment and instruments. This proposed policy however is not intended to allow direct importation by Association members. The PHA is a nationwide association of hospitals, both government and private, in the country. Membership in the said organization is more or less compulsory in that no hospital will be given a permit to operate by the DOH without such membership.

A list of selected PHA member hospitals is presented as Exhibit IX.

SECTION D - SIZE-OF-MARKET ESTIMATES

1. Overall Framework

The demand for medical equipment and supplies is essentially a derived demand. Increased requirements for hospital/ medical care effectively hasten the rate at which equipment and instruments are utilized, at the same time speeding up the consumption rate of supplies. Simultaneously, a rise in demand for medical care improves the financial status of these health service units, all things being equal, and makes them more able and willing to upgrade existing facilities which are now depreciating at a faster rate due to more frequent utilization.

In the opposite case, depressed demand for medical care slows down the depreciation of equipment and instruments and the turnover rate of supplies and consummables. At the same time, weak demand hampers the profitability of existing health service units and makes them less able and willing to upgrade facilities, while the tight financial condition is likely to induce them to exercise prudence on supplies consumption.

In essence, the need for medical care can well be considered as one of the basic needs of man. In the same line that a nation has minimum requirements for food, clothing and shelter in order to survive, a minimum level of medical care is required to address man's basic right for health. No matter how poor an individual becomes, s/he has to seek medical care when ailing. If one's present economic circumstances do not afford him the services of a private health service unit, one goes to a public hospital or clinic.

It is basically in recognition of this minimum requirement for medical care that the government stands responsible to provide services through public hospitals, clinics and other health service units all over the country.

This minimum requirement may well be termed as the subsistence level of the demand for medical care (or SLD) which corresponds to that level of demand exerted by a subsistence wage earner or an individual whose earnings are just enough to keep his muscles and bones together. If this same worker gets poorer by losing his job, his SLD is hardly affected. On the other hand, if he gets promoted such that his pay rises above the subsistence level, his SLD is likely to rise proportionately higher than the increase in his real income. He still has the option to go to a public hospital, but now he is more likely to prefer the services of a private health service unit.

Inasmuch as the demand for medical equipment and supplies is a derived demand, there are, of course, factors which affect its link with the demand for medical care. For instance, a rise in the SLD of the population due to some demographic changes may not necessarily entail a corresponding increase in the number of government hospitals in the country or an expansion of the bed capacity of existing units or both. This is because the government operates within a limited budget which it allocates to the various sectors of the economy on the basis of present and future (both near-term and distant) priorities. Also, some inherent characteristics of the market and the various players involved serve to inhibit the link between the two demand types such that changes in one may not be fully reflected in the other.

The above discussions set forth the assumptions that are to be considered in generating size-of-market forecast pertinent to the study, as follows:

- o the demand for medical equipment and supplies is directly proportional to the demand for medical care;
- o the degree of responsiveness of the former to changes in the latter varies from less than one (or less than unity) to greater than one (or higher than unity);

- o the subsistence level of demand for medical care or SLD represents the sum of the demand exerted by that portion of the population living within or below the subsistence level or poverty line;
- o within the SLD, medical care behaves like a necessity item whose income elasticity of demand approaches zero; beyond the SLD, however, it behaves like a luxury item whose income elasticity of demand is greater than unity;
- o the extent of government involvement in the medical care business approximates the SLD; this implies that government health service units are set up basically to serve the medical care needs of those living within the subsistence level or poverty line; and
- o corollary to the above, private health service units are intended to serve the medical care needs of that sector of the population over and above the poverty level.

These assumptions serve as guide in developing market forecasts within the foreseeable future term.

2. Current Size of the Market

Exhibit X presents the details of computations used in generating estimates for the current size of the market broken down into main product divisions and groups and specific-product types, while Table 8 in the page following summarizes the results.

As reflected in Table 8, the market now consumes about FOB US\$ 28 million worth of medical equipment and supplies annually. Medical supplies make up the bulk or 52 % of total consumption, followed closely by equipment and instruments with 46 %. Furniture accounts for the smallest share of only 2 %.

Table 8. Current Size of the Philippine Market for Medical Equipment and Supplies By Main Product Divisions, By Source and By End -User, In Thousand US Dollars

		Source					
A.	By Main Product Divisions	Local % Share		Imported % Share		TOTAL % Share	
	1. Equipment and Instruments	75.2	1.1	12,716.6	60.6	12,791.8	45.7
	2. Supplies	6,909.1	98.4	7,709.3	36.7	14,618.4	52.2
	3. Furniture	37.6	0.5	562.9	2.7	600.5	2.1
	T O T A L	7,021.9	100.0	20,988.8	100.0	28,010.7	100.0
	Per Cent Share	25.1		74.9		100.0	
		Source					
B.	By End-User	Local % Share		Imported % Share		TOTAL % Share	
	1. Hospitals	6,319.7	90.0	18,889.9	90.0	25,209.6	90.0
	2. Clinics	491.5	7.0	1,469.2	7.0	1,960.7	7.0
	3. Others	210.7	3.0	629.7	3.0	840.4	3.0
	T O T A L	7,021.9	100.0	20,988.8	100.0	28,010.7	100.0
	Per Cent Share	25.1		74.9		100.0	

It is estimated that around 90 % of total consumption are accounted for by hospitals. The remaining 10 % are absorbed by clinics (7 %) and other end-users (3 %).

The market is about 75 % dependent on foreign sources of medical equipment and supplies. Local suppliers provide only 25 % of total requirements.

Equipment and instruments account for the biggest component (60.6 %) of the market's total requirements for imported items. While supplies make up a significant share of 36.7%, furniture accounts for only 2.7%. Consumption of locally manufactured items consists mostly of supplies which account for about 97.2%. Furniture is next with 2.7% while equipment and instruments account for the smallest share of only 0.1%.

Among the six (6) product groups currently served by foreign exporters of medical equipment and instruments, the first group which embraces non-electrical, medical, surgical and veterinary instruments (ophthalmic (included) and appliances emerged the biggest segment. Medical and surgical equipment and instruments dominate this group, while veterinary instruments and appliances account for a very minimal share. This group does not cover dental instruments and appliances which emerged the third biggest component, next to electromedical and radiological apparatus.

Wadding and similar articles dominated the population of imported medical supplies, accounting for almost 50 % of the total. A distant second is the group described as "Other pharmaceutical goods", among which the biggest item is "Sterile surgical catgut and similar suture materials".

Medical, surgical, dental and veterinary furniture that are made of metal almost singly represent the population of imported furniture currently being absorbed by the Philippine market. While furniture made of plastic registered some figures, the market apparently does not absorb imported medical furniture made of wood.

Consumption of locally manufactured equipment and instruments are accounted largely by two (2) items, namely "Applicators and tongue depressors" and "Artificial incubators for babies" which are relatively simple or low-technology items.

The biggest single item among the locally manufactured supplies now being used by health service units in the country is "Sterile absorbent cotton". This was followed by "Adhesive plasters for surgical or medical purposes" and "Artificial teeth of all materials".

Finally, the reason why the market does not make use of imported medical wooden furniture is that this item is sufficiently provided for by local manufacturers.

The above analyses reflect the overall profile of the market, as follows:

- o it is heavily dependent on imported items, particularly in its requirements for equipment and instruments;
- o its dependence on the local manufacturers is concentrated largely on medical supplies;
- o its consumption of medical equipment and supplies is heavily concentrated on hospitals, among other end-users.
- o hospitals (government and private) absorb the bulk or 90 % of the market's total consumption of medical equipment and supplies; and
- o the market relies on both local and foreign sources of medical furniture: local sources provide wooden furniture while foreign sources provide those made of metals and other materials except wood.

3. Demand Parameters

a. Population Growth

Perhaps the most obvious impact of population growth on the demand for medical care is that it literally increases the number of persons that the entire health care system serves. The Philippine population is currently placed at over 57 million and is expected to grow by 2.4 % annually from 1988 to 1992. As shown in Table 9 next page, more than 50 % of the population are aged below 20 years. A young population such as this indicates that a larger segment is dependent upon the income of a smaller and older group for their food, clothing, shelter and medical care expenditures, resulting in a very thinly spread average family income.

Of the thirteen (13) regions in the country, the National Capital Region (NCR) or Metro Manila and Regions 3, 4, 6 and 7 are among the most populous. Of these regions, Metro Manila has the highest population density. This explains the concentration of health service units in this region relative to other regions in the country. In general, urban centers are more densely populated than rural areas.

b. Number and Bed Capacity of Hospitals

The government considers this parameter as the most crucial yardstick for determining the adequacy of the present health care system in meeting the nation's medical care requirements. Development plans formulated by the National Economic Development Authority (NEDA) and the DOH for the health sector placed emphasis on the attainment of targets for hospital bed capacity requirements of the population.

Table 10 presents the number and bed capacity of both government and private hospitals in the country from 1980 to 1987.

Table 9. Philippine Population: Actual and Projected, 1980 to 1987 By Region
In Thousand Persons

Region	Actual 1980	Projections												CGR (%) 1980-1992	CGR (%) 1980-1992
		1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992		
NCR	5,970	6,155	6,343	6,540	6,739	6,942	7,147	7,354	7,561	7,769	7,974	8,180	8,386	2.9	2.6
1	3,543	3,611	3,682	3,754	3,824	3,893	3,970	4,056	4,134	4,212	4,292	4,370	4,450	1.9	1.9
2	2,227	2,283	2,340	2,399	2,459	2,521	2,584	2,648	2,713	2,778	2,845	2,910	2,980	2.5	2.4
3	4,827	4,947	5,070	5,196	5,324	5,456	5,590	5,726	5,863	6,002	6,142	6,280	6,420	2.4	2.3
4	6,155	6,333	6,516	6,703	6,894	7,089	7,287	7,490	7,692	7,897	8,104	8,310	8,520	2.7	2.6
5	3,489	3,572	3,658	3,744	3,833	3,921	4,012	4,104	4,198	4,293	4,389	4,480	4,580	2.3	2.2
6	4,530	4,645	4,755	4,864	4,978	5,092	5,207	5,323	5,439	5,566	5,672	5,790	5,910	2.2	2.1
7	3,794	3,873	3,951	4,031	4,113	4,195	4,278	4,362	4,447	4,531	4,616	4,700	4,790	2.0	1.9
8	2,805	2,857	2,909	2,964	3,018	3,073	3,128	3,185	3,243	3,301	3,361	3,420	3,480	1.8	1.8
9	2,547	2,608	2,671	2,734	2,798	2,863	2,928	2,994	3,061	3,128	3,195	3,260	3,330	2.3	2.1
10	2,773	2,851	2,931	3,012	3,095	3,178	3,264	3,350	3,438	3,526	3,616	3,710	3,800	2.7	2.5
11	3,368	3,459	3,551	3,645	3,740	3,836	3,934	4,032	4,132	4,232	4,334	4,440	4,540	2.5	2.4
12	2,278	2,340	2,403	2,467	2,532	2,598	2,665	2,733	2,802	2,872	2,943	3,010	3,090	2.6	2.5
PHILS.	48,316	49,334	50,780	52,055	53,347	54,647	56,002	57,357	58,723	59,904	61,483	62,860	64,270	2.4	2.3

Percent Distribution By Age Below 20 years old = 53.0 20 to 44 years old = 33.0 45 years old and over = 14.0

Table 10. Number and Bed Capacity of Government and Private Hospitals in the Philippines
1980 to 1987

Year	Number of Hospitals			Bed Capacity			Average Bed Capacity Per Hospital		
	Private	Government	Total	Private	Government	Total	Private	Government	Total
1980	1,112	488	1,600	38,279	49,708	87,987	34	102	55
1981	1,112	487	1,599	32,714	32,090	64,804	29	66	41
1982	1,194	519	1,713	40,051	48,199	88,250	34	93	52
1983	1,179	526	1,705	38,955	46,095	85,050	33	88	50
1984	1,127	612	1,739	42,418	47,861	90,279	38	78	52
1985	1,190	624	1,814	41,613	43,395	85,008	35	70	47
1986	1,229	617	1,846	40,265	48,906	89,171	33	79	48
1987	1,190	624	1,814	43,867	53,184	97,051	37	85	54
CGR (%)	1.0	3.6	1.8	2.0	1.0	1.4	1.0	-2.5	-0.4
% Share in 1987	65.6	34.4	100.0	45.2	54.8	100.0			

The total number of hospitals in the country has been increasing slightly at an annual compound rate of 1.8 % over the eight (8)-year period. Although outnumbered almost two-to-one, the population of government hospitals is growing faster at an annual compound rate of 3.6 % as compared to private hospitals' 1.0 %. While the former registered an increase of 1.1 % from 1986 to 1987, the latter actually suffered a 3.2 % decline over the same period. Despite this, however, private hospitals still comprised 65.6 % of the total number of hospitals in 1987.

Total bed capacity also showed minimal improvements from 1980 to 1987, growing by only 1.4 % annually. Private hospitals' bed capacity grew by 2.0 % as compared to public hospitals' 1.0 %. The latter, however, continues to represent the bulk of total bed capacity, despite the fact that its population is only half that of private hospitals. This is reflected in the computed average bed capacity per hospital which shows that government hospitals are relatively larger in terms of bed capacity.

While the total number of hospitals declined from 1,846 in 1986 to 1,814 in 1987, total bed capacity during these years actually increased by about 7,880 beds or a growth of about 8.8 %. The bulk of such growth came from government hospitals. This underscores government efforts to maintain bed capacity in the country to keep up with increases in population. Bed capacity, however, only managed to grow by 1.4 % annually from 1980 to 1987 which is below the expected annual population growth rate of 2.4 % during the same period.

c. Income Indicators

The demand for medical care is a direct function of income. A rise in real per capita income, for instance, translates to a corresponding increase in real per capita expenditures (other factors

held constant), one component of which is medical care. As pointed out earlier, income elasticity of the demand for medical care varies at different income levels:

Table 11 shows how the country's real Gross National Product (GNP) and real per capita income behaved over the last eight (8) years, or from 1980 to 1987.

Real GNP plummeted to its lowest level in 1985 before showing signs of recovery in 1986 and 1987. It took a year before real per capita income could adjust accordingly. Despite the slight improvement in real GNP in 1986, real per capita income was at its lowest during this year but rebounded to a 3.1 % growth in 1987. This growth was brought about mainly by a rising demand for labor and better real wages coupled with a controlled inflation rate that year.

Despite the 5.6 % growth in labor force from 1986 to 1987, the employment rate improved from 88.2 % to 88.8 %. This is reflected in the 0.6 % decline in the unemployment rate during this period. Labor underutilization, as measured by the underemployment rate, declined significantly from 35.6 % in 1986 to 33.6 % in 1987.

Meanwhile, real daily wage rates also improved during this period, especially for non-agricultural workers in Metro Manila.

These developments, however, cannot be expected to affect significantly the current income distribution structure in the country. Although the alleviation of poverty is one concern of the present government, around 69 % of the total number of Filipino families in the country still live below the poverty line (Table 12). Based on current economic conditions, the government placed the subsistence or poverty income level for the average Filipino family size of five persons (parents included) at ₱ 2,500 a month or ₱ 30,000 per annum. This income level will be just enough to provide the family its basic

Table 11. Gross National Product (GNP), Population and Per Capita Income of the Philippines
1980 to 1987

	1980	1981	1982	1983	1984	1985	1986	1987
GNP (In Million Pesos at Constant Prices of 1972)	92,629	96,041	97,539	98,619	91,644	87,766	89,611	94,680
% Change		3.7	1.6	1.1	-7.1	-4.2	2.1	5.7
Population (In Million Persons)	48.3	49.5	50.8	52.1	53.3	54.7	56.0	57.4
% Change		2.5	2.6	2.6	2.3	2.6	2.4	2.5
Real Per Capita Income (In Pesos)	1,918	1,940	1,920	1,893	1,719	1,604	1,600	1,649
% Change		1.2	-1.0	-1.4	-9.2	-6.7	-0.3	3.1
CPI (All Items, 1978=100)	138.9	157.1	173.2	190.5	286.4	352.6	355.3	368.7
Inflation Rate (%)		13.1	10.2	10.0	50.3	23.1	0.8	3.8

Sources of data: NEDA, NSO

Table 12. Total Number of Families, Total and Average Family Income by Income Class, Philippines, 1985

Income class	Total number of familie (thousands)	% Share	Income		
			Total (thousand pesos)	Annual Average (pesos)	Monthly Average (pesos)
Under P 6,000	375		15898.6861844 1,699,850	4,523	377
6,000 - 9,999	1,117		9,202,175	8,240	687
10,000 - 14,999	1,778		22,207,257	12,490	1,041
15,000 - 19,999	1,540		26,769,814	17,385	1,449
20,000 - 29,999	1,936		47,373,441	24,465	2,039
Sub-total	6,746	68.5	107,252,537	15,899	1,325
30,000 - 49,000	1,086		37,402,390	34,452	2,871
40,000 - 59,999	1,044		50,498,966	48,393	4,033
60,000 - 99,999	626		47,225,272	75,471	6,289
100,000 and over	346		63,396,111	183,439	15,287
TOTAL	9,848	100.0	305,775,276	31,049	2,587

Sources of Data: NEDA, MSO

needs for food, clothing, shelter and medical care, among others.

As shown in Table 12, each of the families living below the poverty line receives an average monthly income of only ₱ 1,325 which is way below the ₱ 2,500 subsistence level. Under this income distribution structure, increases in real per capita income can only be expected to create slight changes in the demand for medical care because majority of the people still lack the more basic necessities of life such as food, clothing and shelter. Further, people under conditions of poverty are likely to be more dependent on government for their medical care such that the demand is likely to be concentrated on public health service units, especially those offering services for free such as rural health centers and barangay health stations. This is precisely the reason why we often see government hospitals congested with patients.

It is, therefore, not surprising that family expenditure for medical care in the country has remained one of the smallest components of total expenditures of the average Filipino family since the 1960's, showing very minimal improvements over time (Table 13).

4. Potential Demand-Supply Gap in the Market

Given the country's present income distribution structure, population growth becomes the most crucial factor in determining the nation's minimum requirements for medical care. Population growth actually raises this minimum requirement as the government is pressured to put up additional health service units or expand the capacity of existing ones or both.

The government, however, operates within a limited budget and is constrained by its present priorities. As shown in Table 14 in the page following, education, culture and manpower development remain the top priority of the government among other social services. Budget

Table 13. Percentage Distribution of Total Family Expenditures
By Major Expenditure Group, Philippines: 1961, 1965, 1971 and 1985

Expenditure Group	1961	1965	1971	1985
Total family expenditures (in thousand pesos)	7,934,063	14,748,076	28,430,424	264,551,855
Percent	100.0	100.0	100.0	100.0
Food	53.8	53.7	53.7	51.9
Food consumed at home	51.6	50.8	51	48.8
Cereals and cereal preparation	20.2	21.1	19.6	18.5
Fish and marine products	10.5	9.3	8.9	7.9
Meat, meat preparations, dairy products and eggs	7.9	8.4	9.7	10.3
Roots, tubers, fruits and vegetables	6.1	5.0	5.5	5.3
Miscellaneous	6.9	6.9	7.4	6.7
Food regularly consumed outside the home	2.3	2.9	2.7	3.1
Alcoholic beverages	1.7	1.6	1.7	1.1
Tobacco	4.2	3.2	3.3	2.3
Housing	8.3	9.1	9.4	12.5
Fuel, light and water	4	3.6	3.6	5.5
Household furnishings and equipment	2.1	2	2.3	1.9
Household operations	2.6	2.5	2.4	2.4
Clothing, footwear and other wear	7	6.5	6.2	3.6
Personal care and effects	2.3	2.5	2.2	2.1
Transportation and communication	2.3	2.6	2.9	4.4
Recreation	1.8	1.8	1.8	0.4
Education	3.1	3.5	3.7	3.5
Gifts and contributions	0.9	0.9	0.6	1.0
Taxes	0.4	0.6	0.3	1.0
Special occasions	2.3	2.7	2.5	2.2
Other expenditures	1.4	1.5	1.5	1.8

SOURCE: NEDA

Table 14. Budget Sectoral Allocation of Expenditures, 1988 and 1989
In Billion Pesos

SECTOR/ Subsector	1988	1989
1. ECONOMIC SERVICES	35.6	44.7
o Agriculture, Agrarian Reform and Natural Resources	13.4	16.2
o Trade, Tourism and Industry	1.4	1.3
o Power, Water, Transport and Communications	13.9	22.3
o Others	6.9	4.9
2. SOCIAL SERVICES	35.9	44.0
o Education, Culture and Manpower Development	21.9	29.9
o Health	6.0	7.3
o Social Security, Labor and Employment	1.3	1.6
o Housing and Community Development	0.5	0.4
o Others	6.2	4.8
3. DEFENSE	16.8	20.8
o Domestic Security	10.8	13.3
o Peace and Order	6.0	7.5
4. GENERAL PUBLIC SERVICES	15.6	19.0
5. DEBT BURDEN	86.8	100.4
o Interest Payments - On Domestic Debt	32.6	23.2
o Interest Payments - On Foreign Debt	13.3	19.2
o Principal Amortization - On Domestic Debt	15.7	24.3
o Principal Amortization - On Foreign Debt	18.7	22.0
6. NET LENDING	6.5	2.7
TOTAL	190.7	228.9
	=====	=====

SOURCE: Department of Budget and Management

allocations for health services this year (1988) and next are primarily intended to maintain existing hospitals.

Government therefore cannot be expected to fully respond to pressures arising from population growth in so far as the provision of health services is concerned. This shortcoming is manifested clearly in the behavior of the combined bed capacity of public and private hospitals whose improvements in the last two (2) years lagged behind the expected population growth rate during the same period.

Medium-term development plans for the health sector formulated by NEDA and DOH placed the hospital bed capacity requirement of the 1987 population level of 57.4 million at around 101,000 beds or a target bed-to-population ratio of 1:570. However, the combined bed capacity of public and private hospitals in the country reached only 97,051 beds during the year, for a deficit of around 4,000 beds.

This 4,000-bed deficit translates to a potential demand-supply gap in the market last year equivalent to over a million FOB US dollar worth of medical equipment and supplies. Around 75 % or US \$772,000 of this gap is accounted for by imported items the bulk of which or 61 % consists of equipment and instruments. Table 15 in the page following shows the details of computation used in arriving at these demand-supply gap estimates.

In essence, this demand-supply gap represents the value of medical equipment and supplies that could have been consumed by the market last year (1987) had the capacity of the local health care system been adequate to serve the minimum medical care requirements of the population. Given the high incidence of poverty in the country, this gap constitutes a pressure that is focused more on the government than on the private sector.

Table 15. Potential Demand-Supply Gap in the Market By Main Product Divisions and By Source
Details of Computation

I. Population Level (million persons)	57.4
	=====
II. Hospital Bed Requirement (thousand beds)	101
	=====
Less: Existing Bed Capacity (thousand beds)	97.1

Demand Gap (thousand beds)	3.9

III. Total Consumption of Medical Equipment and Supplies (US\$000)	28,010.7
	=====
Percent Consumed By Hospitals	90.0

Total Hospital Consumption (US\$000)	25,209.6

Number of Hospitals in the Country	1,814

Consumption Per Hospital (US\$000)	13.9

IV. Average Bed Capacity Per Hospital	54

Demand Gap (Number of Hospitals)	74

V. Demand Gap (Consumption in US\$000)	1,029.6
	=====
- Local (25%)	257.4

- Imported (75%)	772.2

VI. Demand Gap (Consumption of Imported Items in US\$000)	772.2
	=====
- Equipment and Instruments (61%)	471.0

- Supplies (37%)	285.7

- Furniture (2%)	15.5

SECTION E - CONCLUSIONS

1. Growth Prospects

From the foregoing discussions, it is evident that prospects for the Philippine market for medical equipment and supplies to grow within the foreseeable future term depend much on the overall performance of the economy and consequent improvements in the national income distribution structure. While developments in recent years (1986 to 1987) appeared favorable, the market cannot be expected to grow much within the short-term (1988 to 1990) during which improvements in the demand for medical care will depend mainly on population growth. Demand pressures are expected to come mainly from public health service units within this period as the government responds to the rising medical care requirements of the populace.

The private sector is likely to grow only slightly in the short-term as this period will not be long enough for the economy to haul the majority of the Filipino people beyond the poverty line. Nevertheless, improvements in real income in recent years may well be sustained within this timeframe as the country is expected to remain politically stable at least up to 1992 when uncertainties necessarily attend the holding of the presidential elections.

Improvements in income will therefore be the main driving force toward increasing demand for medical care during the medium-term. As such, demand pressures are expected to come mainly from private health service units. At first, existing hospitals are likely to expand their respective capacities to the maximum after which new entrants into the market will follow in response to the rising demand. Medical examination or laboratory diagnostic centers will gobble a significant share of the market during this period as the provision of medical services to employees becomes a standard among firms.

Meanwhile, the sustained improvements in income will make the local populace more selective in deciding which hospital or clinic to go to. This change in attitude is likely to promote competition in the business such that private hospitals and clinics are compelled to constantly upgrade facilities to remain competitive. Further, patient traffic in public health service units is expected to loosen up toward the latter part of this period.

The long-term or 1995 to 2000 is seen as a period in which the market is growing fastest toward its maturity. Assuming a continued rise in real income, majority of the Filipino people should have hurdled the poverty level by this time such that the elasticity of the demand for medical care is highest at this stage. Private health service units will dominate within this timeframe both in terms of number and capacity while government involvement in the market is expected to be at a minimum.

Within these timeframes, the market will continue to be heavily dependent on imported items, especially equipment and instruments. Because of the absence of a well-developed backward linkage such as the metalworking industry in the country and the high cost of generating technology, it will be more economical for the market to remain dependent on foreign technology. Although the improving business environment could possibly encourage the establishment of production tie-ups between local and foreign partners, this does not entirely cut-off the market's dependence on foreign sources because foreign firms can compete via this joint-venture arrangements, just like what multinational firms are doing in the drug business in the country today. In essence, outputs of these companies can well be considered as still imported commodities.

The share of imported medical supplies in the market is expected to gradually shrink throughout the forecast period as local capabilities to manufacture these items improve over time. Moreover, some multinational firms in the pharmaceutical industry are found to be diversifying in the manufacture of such items like sterilized cotton and other hygienic

products. Because of the hugeness of these firms, their capabilities to diversify into such medical supplies as wadding, gauzes and surgical gloves cannot be put into question.

Future requirements of the market for wooden medical furniture will be completely provided by local sources. For metal or plastic-based medical furniture, however, health service units will still make use of imported ones but in decreasing proportion to local counterparts. This is because the technological and capital requirements for manufacturing these items are relatively low such that local producers are bound to come up with comparable imitations in due time.

2. Size-of-Market Forecasts

Based on the above considerations, size-of-the-market forecasts were generated using the following basic assumptions:

- o the demand for medical equipment and supplies is directly proportional to the demand for medical care services;
- o real per capita income constantly improves alongside population growth throughout the forecast period;
- o in the short-term, rising real per capita income has negligible effect on the demand for medical care such that the population growth rate of 2.4 % during this period approximates the growth rate in the demand for medical care; however, the latter is estimated to be lower (only 2.0 %) because health services is not among the more pressing and immediate concerns of the government as reflected in its 1988 and 1989 budgets;
- o in the medium-term, the market is projected to grow at a rate slightly faster (at 3.0 %) than the population growth rate because the government can no longer afford to deprioritize

health services by this time; meanwhile, the positive effect of the continued rise in real per capita income on the demand for medical care is slowly being felt by the private health service units at this stage;

- o the long-term is viewed as a timeframe when the average real per capita income has outpaced the poverty income level such that the market grows at a much faster rate (5.0 %) during this period:

Exhibit XI presents the size-of-market forecasts for the three (3) timeframes considered or from 1988 to 2000. Table 16 in the page following summarizes the projected figures.

3. Major Issues Affecting Market Access

Our research of the Philippine medical equipment and supplies industry revealed a number of major issues crucial to market access. These are highlighted below to serve as relevant inputs to the marketing strategies to be employed by prospective Canadian exporters/medical equipment manufacturers in their efforts to make headway in the Philippine market.

- o Channel of Distribution - Imported medical equipment and supplies are normally marketed by local middlemen, usually a local agent who may represent a number of manufacturers. For sales outside of the urban centers (specifically Metro Manila), more distributors/ channels are tapped.

For equipment manufacturers who are serious in penetrating the local market (as well as those whose contracts involve high dollar values), they are well advised to establish a formal long-term relationship with a reputable local (distributor), or better set up a local subsidiary. By establishing a local office, suppliers may demonstrate to clients an active interest in the market and a willingness to provide a continuous and consistently high standard of service, especially after sales. Tighter marketing control and better technical

Table 16. Size-of-Market Forecasts From 1988 to 2000, By Main Product Division and By Source
Value in Thousand US Dollars

Division / Source	1988 \$ Share		1990 \$ Share		1995 \$ Share		2000 \$ Share	
A. Equipment and Instruments	13,047.6	100.0	13,574.8	100.0	15,736.9	100.0	20,084.7	100.0
Imported	12,969.3	99.4	13,493.4	99.4	15,642.5	99.4	19,964.2	99.4
Local	78.3	0.6	81.4	0.6	94.4	0.6	120.5	0.6
B. Supplies	14,910.8	100.0	15,513.2	100.0	17,984.0	100.0	22,952.7	100.0
Imported	7,753.6	52.0	7,756.6	50.0	8,092.8	45.0	9,181.1	40.0
Local	7,157.2	48.0	7,756.6	50.0	9,891.2	55.0	13,771.6	60.0
C. Furniture	612.5	100.0	637.3	100.0	738.8	100.0	942.9	100.0
Imported	569.6	93.0	579.9	91.0	635.4	86.0	763.7	81.0
Local	42.9	7.0	57.4	9.0	103.4	14.0	179.2	19.0
T O T A L	28,570.9	100.0	29,725.3	100.0	34,459.7	100.0	43,980.3	100.0
Imported	21,292.6	74.5	21,829.9	73.4	24,370.6	70.7	29,909.0	68.0
Local	7,278.3	25.5	7,895.4	26.6	10,089.1	29.3	14,071.3	32.0

representation will also be added to benefit those with local offices.

- o Importance of Price and Payment/ Credit Terms - The Philippine is a developing economy and as should have been made clear by the earlier discussions, its health care and support services industry lags far behind those of the developed nations. The economic condition has forced many end-user sectors, both government and private, to place greater importance on price in the overall purchase decision. Significant savings by way of improved performance, reliability and durability must be evident for any substantially higher price differences to be paid by end users.

In addition, all government purchases involve tenders/ bids. The standard procedure is that a contractor or bidder whose tender satisfies the technical specifications (including track record) and offers the lowest price is awarded the contract. Hence, price is important government purchase decision.

For transactions involving large-volume equipment, it is worthwhile for foreign suppliers to introduce innovative financing or credit arrangements.

In the private end-user sector perhaps it is time to consider equipment leasing.

- o Advertising and Sales Promotion Techniques - It is our understanding that very little advertising and promotional activities are being undertaken. It is very likely that suppliers (or their agents) primarily utilize direct sales representation when marketing high value equipment to end users.

Locally published technical industry-specific brochures are very few in number. Marketing efforts using local brochures, trade catalogues and journals should be thoroughly assessed. Nevertheless, medical advertising (with the use of newspapers, tabloids or similar publications) could be employed to a limited degree.

- o Technical Requirements - The electrical power supply characteristics in most areas of the Philippines are 220/ 110 volts, and 3-phase, 460/320 volt, 60-cycle outlets are common. The bulk of the electricity is supplied as alternating current with some isolated pockets of direct current supply.

In the Philippines, the metric system of weights and measures is the statutory standard.

EXHIBITS

Typical Composition or Product Mix of the Philippine Market for Medical Equipment & Supplies
By Area or Field of Hospital Service

A. ANESTHESIOLOGY & PRIMARY MEDICINE DEVICES AND SUPPLIES	G. HEMATOLOGY DEVICES	J. NEUROLOGY DEVICES AND SUPPLIES	P. RADIOLOGY DEVICES
1. Calibrators, Meters & Graphs 2. Gas Administration Devices 3. Humidifiers 4. Monitors, Electrodes & Rel. Devices 5. Rebreathers 6. Oxygen Chambers 7. Restraints 8. Section and Drainage Devices 9. Ventilation Devices	1. Instruments, Equip't & Supplies 2. Solutions, Reagents, Controls & Test Kits, Stains	1. Catheters 2. Monitors	1. Contract Media 2. Film and Film Handling Devices 3. Radiographic/Fluoroscopic Devices 4. Radiotherapy Devices 5. Ultrasonic Imaging
B. CARDIOVASCULAR DEVICES AND SUPPLIES	H. MICROBIOLOGY DEVICES	L. OPTIC/PHARMIC DEVICES AND SUPPLIES	Q. SURGERY DEVICES
1. Blood Pressure Measurement 2. Catheters and Canulae 3. Monitors, Recorders, Transducers, Detectors, Meters, Alarms 4. Prostheses & Reconstruction Mat. 5. Resuscitation Devices	1. Analyzers, Antibodies, Antigens 2. Antisera, Culture Media 3. General Laboratory Equipment and Supplies 4. Identification, Screening & Test Kits & Reagents	1. Dressings/ Covers 2. Instruments 3. Therapeutic Devices	1. Catheters, Canulae and Tubing, Sponges 2. Dressings, Sponges 3. Electrical Devices 4. Infection and Hazard Control 5. Instruments and Jars 6. Operating Room Cloth & Surgical Drapes 7. Operating Room Furni & Item Furnishings 8. Sutures and Closures
C. CHEMISTRY DEVICES AND SUPPLIES	I. GENERAL HOSPITAL AND PERSONAL USE DEVICES AND SUPPLIES	M. ORTHOPEDIC DEVICES AND SUPPLIES	R. TOXICOLOGY DEVICES
1. Enzyme Test Systems 2. Gen. Chemistry Test Systems 3. General Purpose Lab. Instru-ments, Equipment, Supplies 4. Meters 5. Protein Test Systems	1. Accessories and Furnishings 2. Analyzers 3. Bathroom Furnishings 4. Cleaning/ Sterilizing Devices 5. Communication Devices 6. Dressings 7. Enzy. Devices 8. Exam/ Treatment/ Procedure Devices 9. Food Handling Devices 10. General Lab Devices 11. General Purpose Furniture 12. Hospital Linens/ Textiles 13. Injection Devices 14. Instruments 15. Irrigation and Drainage 16. Isolation & Air Handling Devices 17. Laundry Devices 18. Medication Dispensing Devices 19. Nursing Station Administration 20. Office Equipment and Supplies 21. Operating Room Devices 22. Patient Room Devices 23. Repairs and Maintenance 24. Respiratory Devices 25. Self-Help Devices 26. Services 27. Shipping, Packaging and Labels 28. Skin Care/ Treatment 29. Solutions 30. Specimen Collection 31. Teaching Devices 32. Transportation of Materials 33. Transporters of Patients 34. Tinting 35. Vital Signs Devices 36. Waste Management Devices	1. Cast Related Devices 2. Diagnostic Devices 3. Support and Traction Devices 4. Surgical Instruments and Supplies	1. Radioimmunoassay Tes Systems 2. Toxicology Instrumen Equipment (excluding Chromatography)
D. DENTAL DEVICES AND SUPPLIES	N. PATHOLOGY DEVICES	O. PHYSICIAN MEDICINE DEVICES	S. OTHERS
1. Dental/ X-ray Equipment 2. Drill and Related Devices 3. Furniture 4. Hand Instruments 5. Kits 6. Lighting Equipment 7. Oral Hygiene Products 8. Orthodontic Devices 9. Powered Cutting & Cleaning Devices 10. Sterilizers and Cleaners 11. Section/ Aspirator	1. Anesth. Room Equip't & Supplies 2. Cell and Tissue Culture Products 3. Pathology Equipment, Instrum-entation and Supplies 4. Specimen Preparation Reagents	1. Baths/Heat & Cold Application 2. Devices 3. Diagnostic Devices 4. Exercisers 5. Ferallure 6. Prosthetics and External Limb Components 7. Self-Help Devices 8. Supports 9. Therapeutic Devices 10. Traction Devices 11. Walking Aids 12. Wheelchairs and Transfer Equipment	1. Population Control Devices & Supplies 2. Veterinary Devices and Supplies 3. Mental Health Care Devices & Supplies
E. EAR/ NOSE THROAT DEVICES AND SUPPLIES	F. GASTROENTEROLOGY AND UROLOGY DEVICES & SUPPLIES		
1. Rhinoscopic Devices 2. Therapeutic Devices 3. Tubes	1. Catheters, Canulae, Tubes & Connectors 2. Bypass Devices 3. Incontinence Devices 4. Instruments 5. Meters		

SOURCE: Department of Health (DOH)



POC Product Categories Found Applicable to Medical Equipment and Supplies

D I V I S I O N / G R O U P / C O M M O D I T Y

A. EQUIPMENT & INSTRUMENTS

1. Medical, surgical and veterinary instruments (including ophthalmic instruments) and appliances (except electro-medical apparatus); parts thereof

- 872.02-01 Optical examining and diagnostic instruments, apparatus and appliances (ophthalmoscope, retinoscope, etc.), nos
- 872.02-03 Applicators and tongue depressors
- 872.02-04 Hypodermic needles
- 872.02-05 Brushes of a kind specialized for medical, surgical or veterinary purposes
- 872.02-09 Other medical, surgical and veterinary instruments and appliances, nos
- 872.02-02 Parts of items falling under this group

2. Dental instruments and appliances

- 872.01-01 Brushes specially designed for use with a dental drill engine
- 872.01-02 Other dental instruments and appliances

3. Mechano-therapy appliances; massage apparatus; artificial respiration, ozone/oxygen/aerosol therapy or similar apparatus; breathing appliances

- 872.03-01 Therapeutical apparatus
- 872.03-03 Massage apparatus
- 872.03-04 Breathing appliances
- 872.03-05 Parts and accessories of instruments and appliances falling under this group

4. Electric apparatus for medical purposes and radiological apparatus

- 774.11-00 Electrocardiographs
- 774.12-00 Artificial incubators for babies
- 774.22-00 X-ray apparatus and apparatus based on the use of radiations from radioactive substances
- 774.21-00 X-ray dark room construction materials
- 774.23-00 Other electric apparatus for medical purposes and radiological apparatus, nos

5. Clinical thermometers (874.54-01)

6. Mobile radiological units (785.23-00)

B. SUPPLIES

1. Wadding/gauze/bandages and similar articles, impregnated or coated with pharmaceutical substance or put up in retail packing for medical or surgical purposes, nes
 - 541.91-01 Wadding (excluding absorbent cotton, etc.; bleached or dyed or otherwise finished), gauze, bandages & similar articles, medicated
 - 541.91-02 Wadding (excluding absorbent cotton), sterilized or put up in retail packing for medical or surgical purposes, medicated
 - 541.91-03 Gauze and bandages, sterilized or put up in retail packing for medical or surgical purposes, unmedicated
 - 541.91-04 Adhesive plasters, unmedicated, in retail packing for medical or surgical purposes, unmedicated (excluding cotton gauze)
 - 541.91-05 Sterile absorbent cotton
 - 541.91-06 Plaster-coated fracture bandages
 - 541.91-07 Cotton specialties, sterile or non-sterile (including cotton-tipped applicators, cotton pellets, non-absorbent cotton, etc.)
 - 541.91-08 Poultrices
2. Other pharmaceutical goods
 - 541.99-01 Sterile surgical catgut and similar suture materials
 - 541.99-02 Sterile laminae and laminae tents
 - 541.99-03 Sterile absorbable surgical hemostatics
 - 541.99-04 Quacifying preparations used in x-ray examinations and diagnostic reagents designed to be administered to the patient
 - 541.99-05 Blood grouping reagents
 - 541.99-06 Dental cement and other dental fillings
 - 541.99-07 First-aid boxes and kits
3. Laboratory, hygienic and pharmaceutical glassware, whether or not graduated or calibrated; glass ampoules
 - 645.81-01 Ampoules
 - 645.81-02 Flasks
 - 645.81-09 Other laboratory, medical, surgical, dental and hygienic glassware, nes
4. Hygienic and pharmaceutical articles (including tests), of unhardened vulcanized rubber, with or without fittings of unhardened rubber
 - 628.10-01 Rubber bags for ice, hot water and oxygen
 - 628.10-02 Rubber droppers
 - 628.10-03 Bottle nipples, of unhardened vulcanized rubber
 - 628.10-04 Rubber syringes and bulbs thereof
 - 628.10-09 Other hygienic, medical or surgical articles of unhardened vulcanized rubber, nes
5. Orthopedic appliances, surgical belts, trusses and the like; splints and other fracture appliances; artificial limbs, eyes, teeth and other artificial parts of the body; appliances which are worn or carried in the body to compensate for a defect or disability (except hearing aids)
 - 899.62-01 Artificial teeth of all materials
 - 899.62-02 Artificial dentures and bridges of all materials
 - 899.62-03 Orthopedic shoes wholly or mainly of leather or composition leather
 - 899.62-09 Other orthopedic appliances, artificial parts of the body, fracture appliances, pessaries and other appliances to compensate for a defect or disability, nes
6. Hygienic medical and surgical articles, whether enameled or not (bedpans, urinals, irrigators, instrument & catheter trays, pus & solution basin, infant baths, etc.)
 - 697.51-01 Hygienic, medical and surgical articles, of iron or steel
 - 697.52-01 Hygienic, medical and surgical articles, of copper
 - 697.53-01 Hygienic, medical and surgical articles, of aluminum
7. Hearing aids (899.61-00)

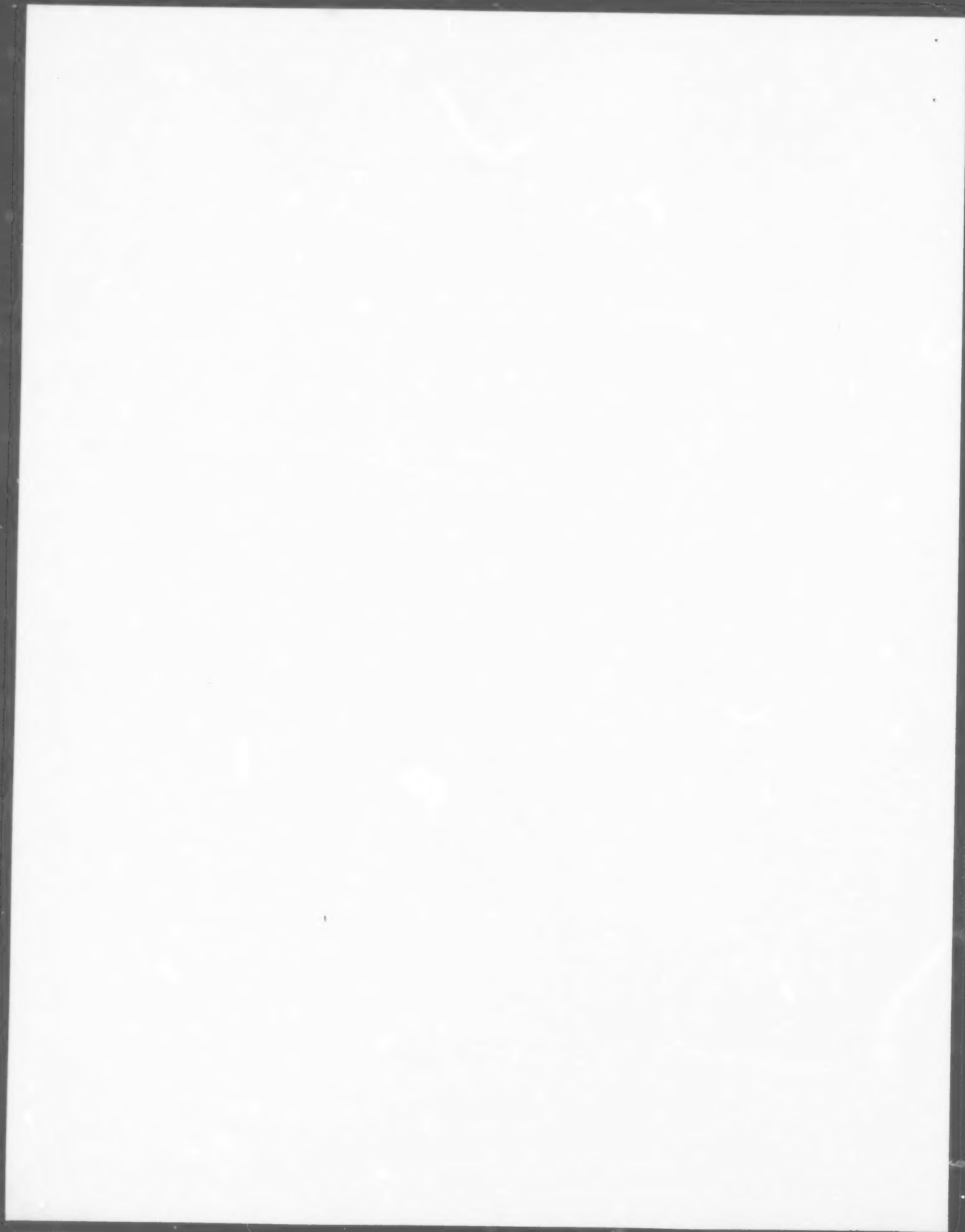
FURNITURE

- a). dental, surgical and veterinary furniture (operating tables, hospital beds with mechanical fittings); dentist's and similar chairs elevating, rotating or reclining movements; parts of the foregoing articles
- 1-01 Medical, dental, surgical & veterinary furniture (e.g. operating tables, hospital beds, medicine cabinets), of wood
- 1-02 Identifiable parts of medical, dental, surgical or veterinary furniture, of wood
- 1-03 Medical, dental, surgical & veterinary furniture (e.g. operating tables, hospital beds, medicine cabinets), of metal
- 1-04 Identifiable parts of medical, dental, surgical or veterinary furniture, of metal
- 1-05 Medical, dental, surgical & veterinary furniture (e.g. operating tables, hospital beds, medicine cabinets), of plastic or other materials
- 1-06 Identifiable parts of medical, dental, surgical or veterinary furniture, of plastic or other materials
- 1-07 Dentist's and similar chairs with mechanical, elevating, rotating or reclining movements, of wood
- 1-08 Identifiable parts of dentist's and similar chairs with mechanical, elevating, rotating or reclining movements, of wood
- 1-09 Dentist's and similar chairs with mechanical, elevating, rotating or reclining movements, of metal or other materials except wood
- 1-10
- 1-11
- 1-12

id carriages, fitted with means of mechanical propulsion, whether motorized or not or otherwise mechanically propelled

- 1-00 Invalid carriages, fitted with means of mechanical propulsion, whether motorized or not
- 1-20 Invalid carriages, other than motorized or not or otherwise mechanically propelled

Source of data: HSO



Directory of Firms Engaged in the Medical Equipment and Supplies Business
As Compiled by The Department of Trade & Industry (DTI) a/j

COMPANY NAME	ADDRESS	TEL. NO.	TYPE OF BUSINESS	PRODUCT LINE (S)	CAPITALIZATION (Pesos)	CONTACT PERSON
1. Hegache Commercial	126-B Tioog Ave., Brgy. Sacred Heart Quezon City, Metro Manila, Phils.	952-078	Wholesaler	Laboratory reagents, glasswares & equipment	20,000	Na. Olga Casale
2. Ultra Med Marketing Corp.	3 B2H Bldg., Tioog Ave., Quezon City Metro Manila, Philippines	969-146	Wholesaler	Medical, dental & hospital supplies, equipment and apparatus	1,000,000	Benito Santos
3. Balayan Manufacturing Co., Inc.	1146 Hermosa St., Tondo Metro Manila, Philippines	211-043	Manufacturer	Medical equipment, spare parts	300,000	Francisco Sy-chanco
4. C. M. Bautista Trading	174 Mariveles St., La Loma, Quezon City Metro Manila, Philippines	-	Wholesaler	Medical, dental, nursing supplies & equipment	50,000	Corazon Bautista
5. JC's Enterprises	323 C. de Dios St., Sta Mesa Metro Manila, Philippines	615-314	Wholesaler	Medical & dental supplies and equipment	50,000	Coroncita David
6. San Rio Trading & Supply, Inc.	69 A. Roque St., Tungkaya, Malabon Metro Manila, Philippines	-	Wholesaler	Hospital equipment, parts and supplies	150,000	Marlo Vilmandrid
7. Quejser Trading	5 Hanga St., Katiguayan, SDOs, Quezon City Metro Manila, Philippines	965-364	Wholesaler	Dental & hospital equipment, chemicals and supplies	50,000	Emmanuel Javier
8. Medical Center Trading Corp.	No. 8 Mercery Ave., Tibis, Quezon City Metro Manila, Philippines	721-9201 to 13	Importer/Wholesaler/Manufacturer	Hospital/medical equipment, instruments and supplies	5,000,000	Dr. Antonio C. Macatangay
9. Far East Surgical Industries	1718 Rizal Ave., Sta. Cruz Manila, Philippines	711-8230	Wholesaler	Hospital, medical and surgical supplies and equipment	200,000	Francisco M. Jose
10. Epsilon Scientific Supply	126-A Tioog Ave., Sacred Heart, Quezon City Metro Manila, Philippines	952-078	Importer/Wholesaler	Laboratory glasswares and equipment	20,000	Franito Casale
11. B.M. Benedicta Enterprises	81 V. Luna Road, Pinahan, Quezon City Metro Manila, Philippines	922-4606	Wholesaler	Medical, dental and laboratory equipment and supplies	50,000	Ramuel Marquez
12. Technomed International, Inc.	Medcor Bldg., Ortigas Ave., San Juan Metro Manila, Philippines	721-1860	Importer/Distributor	Medical, dental and laboratory equipment and supplies	1,000,000	Jose Na. Rodriguez
13. Biotronich, Inc.	4 New Garden, Brgy. St. Ignatius, Quezon City Metro Manila, Philippines	721-4468	Wholesaler	Medical equipment and supplies	100,000	Josephine Legueta
14. The Analyst Supply House, Inc.	531 San Rafael St., Mandaluyong Metro Manila, Philippines	780-354	Importer/Wholesaler	Medical machineries, equipment and supplies	500,000	Jaimito Lopez
15. Chemtron Instruments Corp.	5518 South Superhighway, Nakati Metro Manila, Philippines	871-397	Trader	Laboratory equipment and instruments	50,000	Feliberto Villaraza
16. VVV Trading	376 Gen. Y. Lio St., San Juan Metro Manila, Philippines	722-0218	Importer/Wholesaler	Laboratory equipment and instruments	24,000	Ambroscio T.C. Acero
17. Denta Dynamics Dental Supplies	48-9 Aurora Arcade, Aurora Blvd., Cubao Quezon City, Metro Manila, Philippines	-	Retailer/Wholesaler	Dental supplies and laboratory equipment	200,000	James Gotico
18. DMW Medilab Trading	15-C Sevilla St., Malabon Metro Manila, Philippines	238-079	Wholesaler	Hospital and laboratory supplies	50,000	Blondado Verbo
19. Trishellon Philippines, Inc.	4 Cardos St., Quezon City Metro Manila, Philippines	712-0380	Wholesaler/Manufacturer	Medical equipment and supplies, chemicals and pharmaceuticals	1,000,000	Artero Bernal
20. Harvest Moon Trading	No. 200 Jennie Bldg., Guiricada St., Sta. Cruz, Manila, Philippines	741-6528	Retailer/Wholesaler	Medical supplies, instruments, equipment and linens	100,000	Teresita Nolan
21. M. Perfecto Enterprises	330 Jade St., Agro-Homes Subd., Muntinlupa Metro Manila, Philippines	-	Retailer/Wholesaler	Hospital and medical supplies & equipment	50,000	Manorrat Perfecto

a/ Most of these firms were found to be no longer operating; it thus confirms the presence of "fly-by-night" traders in the local medical equipment & supplies market. This is understandable in that the DTI list was based on a one-time registration with the department's Bureau of Domestic Trade. A more reliable directory of suppliers of medical equipment & supplies is the DDM list of accredited suppliers (ENHART VI) because accreditation with the DDM is renewed every year.

COMPANY NAME	ADDRESS	TEL. NO.	TYPE OF BUSINESS	PRODUCT LINE (S)	CAPITALIZATION (Pesos)	CONTACT PERSON
22. Broadline Marketing, Inc.	1146 Nereosa St., Tondo Manila, Philippines	-	Wholesaler	Hospital and medical supplies	100,000	Francis Sychayco Sr.
23. Denti-Lab, Inc.	2222 Oroquieta St., Sta. Cruz Manila, Philippines	-	Wholesaler/ Manufacturer	Hospital equipment, apparatus and instruments	1,000,000	Narciso Labrador
24. Vibra Trading	1603 Oroquieta St., Sta. Cruz Manila, Philippines	200-763	Wholesaler	Hospital and medical supplies	15,000	Alfredo Baltazar
25. Chronos Trading	1801 Bart St., Paco Manila, Philippines	521-2595	Wholesaler	Hospital and office supplies	30,000	Antonio Estanola
26. Vanhays Commercial	2266 T. Mapa cor. Leguina Sts., Sta. Cruz Manila, Philippines	263-554/ 200-127	Wholesaler/ Distributor	Hospital and medical supplies & equipment	107,000	Reynato Poblete
27. Lahan Mercantile	Soite 610 Bona Amparo Bldg., Espana cor. Cataluna Sts., Manila, Philippines	732-0024/ 405-481	Wholesaler/ Distributor	Hospital and medical supplies & equipment	200,000	Rodolfo Diaz
28. Manila Medical Supplies	1733 Alfonso Mendoza St., Sta. Cruz Manila, Philippines	711-8026/ 711-84-30	Wholesaler	Hospital, dental and medical supplies and equipment	52,000	Solacio Conanan, Jr.
29. Merca Sales	4 Valentia St., Valentia Metro Manila, Philippines	732-0024	Retailer/ Wholesaler	Hospital, dental and medical supplies and equipment	75,000	Hernando Calalang
30. Strong Hold Enterprises	1 J. P. Ramey St., Talipapa, Quezon City Metro Manila, Philippines	961-958	Wholesaler	Medical and dental equipment	30,000	Cesar Del Mundo
31. La Trinidad Enterprises	3104 Ipil St., United Paranaque, Paranaque Metro Manila, Philippines	828-2592	Wholesaler	Medical and dental products	200,000	-
32. Reben Enterprises	1973 Anacleto St., Sta. Cruz Manila, Philippines	213-708	Wholesaler/ Manufacturer	Medical equipment and supplies	107,000	Ruben De Vera
33. Jo-Jia Enterprises	1973 Anacleto St., Sta. Cruz Manila, Philippines	213-750	Wholesaler/ Manufacturer	Medical equipment and supplies	100,000	Jaime Brim
34. JC-AT Enterprises	17 Barra Ave., Napayapa Village, Diliman Quezon City, Metro Manila, Philippines	519-865	Importer/ Wholesaler	Medical equipment	50,000	Solidad Reys
35. Sharp Commercial	403 Dominican St., Sta. Ana Village, Paranaque, Metro Manila, Phils.	827-5168	Wholesaler	Medical equipment and supplies	85,000	Ramon Rano
36. OMC Enterprises	1810 Evangelista St., Bughal, Makati Metro Manila, Philippines	875-916	Wholesaler	Medical equipment and supplies	50,000	Ofelia Calabac
37. Cashlink Enterprises	92 Batino St., Project 3, Quezon City Metro Manila, Philippines	-	Wholesaler	Medical equipment and supplies	10,000	Ernesto Pilar
38. PMA General Merchandise	2094 Jose Abad Santos, Sta. Mesa Manila, Philippines	-	Wholesaler	Medical equipment and supplies	10,000	Peter Arceo
39. CAM Enterprises	50 Riego Juides St., Calocan City Metro Manila, Philippines	903-382	Wholesaler/ Distributor	Medical equipment and supplies	200,000	Gabriel Nucua
40. Meditec Sales	1-D Diaz cor Edison Sts., Makati Metro Manila, Philippines	815-0395	Wholesaler	Hospital equipment and supplies	500,000	Ree De La Cerna
41. Asia Med Enterprises	1022-C Morong St., Manapit, Tondo Manila, Philippines	264-018	Wholesaler	Medical equipment and supplies	50,000	Ramuel Bayao

COMPANY NAME	ADDRESS	TEL. NO.	TYPE OF BUSINESS	PRODUCT LINE (S)	CAPITALIZATION (Pesos)	CONTACT PERSON
42. Cesar B. De Vera Enterprises	328 Sov. Garcia St., Baner's Village Caloocan City, Metro Manila, Phils.	-	Retailer/ Wholesaler/ Manufacturer	Drugs, medicines and medical equipment	100,000	Ces. De Vera
43. Shangri-la Enterprises	1543-A Quezon Ave., Quezon City Metro Manila, Philippines	980-144	Wholesaler	Laboratory equipment and supplies	50,000	Samuel Chang
✓ 44. Solvar (Phils.) Enterprises	Suite 201 Sochoo Bldg., C.M. Recto Ave., Quezon City, Metro Manila, Phils.	-	Retailer/ Wholesaler/ Importer/ Exporter	Hospital/medical equipment and dental supplies	500,000	Basil Garcia
45. Jofanatt Tradelines International	12 Maswin St., Silatuna Village Quezon City, Metro Manila, Phils.	921-5415	Manufacturer/ Wholesaler	Medical equipment and supplies	50,000	Antonio Gallardo
✓ 46. Med-Lines Enterprises	255 Baesa Road, Caloocan City Metro Manila, Philippines	341-74-04	Wholesaler	Pharmaceutical equipment and supplies	20,000	Rodolfo Malencio
✓ 47. Arkhe Trading	Suite 425 Conroads Bldg., Buendia Ave., Kubati, Metro Manila, Phils.	855-661	Trader	Hospital, laboratory and dental equipment	500,000	Efren Belir
48. Sheppert Dental & Medical Clinic Co.	304 Medalla Bldg., EDSA cor. Gen. McArthur Cubao, Quezon City, Metro Manila, Phils.	921-2601	Wholesaler	Dental and Medical equipment and supplies	600,000	Eduardo De Leon
49. C.B.G. Medical Enterprises	34 Saesun Ave., 8F Annex, Caloocan City Metro Manila, Philippines	983-839	Retailer/ Wholesaler	Dental and Medical equipment and supplies	150,000	Cecilio Garrosa
50. Levin's Incorporated	903 EDSA, Bilibiao, Quezon City Metro Manila, Philippines	974-475/476	Retailer/ Wholesaler	Hospital equipment	300,000	Antonio Tanco
51. Thoracor (Phils.)	Po. 101 Dona Cornelina Bldg., 1710 Rizal Ave., Manila, Philippines	711-8838	Wholesaler	Medical supplies	150,000	Francisco Muyet
✓ 52. Vidal Import-Export	547 Francisco St., Tondo Manila, Philippines	267-557	Importer/ Exporter/ Wholesaler	Medical and dental tools & supplies	200,000	Isidro Gonzalez
53. Mical Marketing	103 Arcena St., 10th Ave., Caloocan City Metro Manila, Philippines	557-764	Wholesaler	Hospital and office supplies	31,000	Antonio Coa
54. B. L. Trading	1134 Catalina St., Sampalok Manila, Philippines	-	Wholesaler	Medical supplies, drugs & pharmaceutical products	10,000	Orsiedo Del Castillo
55. Bergener Medical Supplies and Drug Trading	118 Tandang Sora St., Quezon City Metro Manila, Philippines	922-9913	Wholesaler	Laboratory supplies	100,000	Gerry Hiongson
56. Denmark Industrial Sales	Po 312 Borja Bldg., Rizal Ave., Sta. Cruz Manila, Philippines	-	Wholesaler	Respiratory devices and medical supplies	25,000	Salvador Navarro
✓ 57. Manila Integrated Marketing	24 West Capitol Drive, Kapitolyo, Pasig Metro Manila, Philippines	-	Importer/ Exporter/ Wholesaler	Laboratory instruments	100,000	Aurelio Trias, Jr.
58. Christon International Trading	Po 300 CLMC Bldg., 249 EDSA Greenhills Mandaluyong, Metro Manila, Philippines	785-275	Importer/ Wholesaler	Laboratory glasswares, toolbits, carbides, etc.	87,000	Ramon Bernardo
59. ADHF Enterprises	1446-C Labores St., Pandacan Manila, Philippines	585-733	Wholesaler	Dental materials	20,000	Danilo Panzalan
60. Saints Dental Material Enterprises	355 W.M. Del Pilar St., Ususan, Taguig Metro Manila, Philippines	693-5907	Wholesaler	Dental and medical supplies	10,000	Leonardo Santos
61. Standard Dental Supply	440 Platerias St., Quisao Manila, Philippines	487-790	Retailer/ Wholesaler	Hospital supplies	40,000	Virginia Lu
62. E. De La Cruz Trading	5th Filipinas Ave., Paranaque Metro Manila, Philippines	827-9731	Wholesaler	Medical and hospital supplies	100,000	Evelyn De La Cruz
63. Zaen Supplies and Distribution	240-A Kalantiao St., Bagumbay, Proj. 4 Metro Manila, Philippines	-	Wholesaler/ Processor	Surgical and medical supplies	20,000	Eubito Mediere

COMPANY NAME	ADDRESS	TEL. NO.	TYPE OF BUSINESS	PRODUCT LINE (S)	CAPITALIZATION (Pesos)	CONTACT PERSON
54. Sibeth Marketing	2741 Int. 14 Lico St., Tondo Manila, Philippines	741-5337	Wholesaler	Urine bag, IV splints, ice & cold bag, medical supplies	25,000	Leocadio Lopez, Jr.
55. Griffith's Health Supply and Facilities	2339 San Antonio St., Sampaloc Manila, Philippines	-	Wholesaler	Medicines, gauze, disposable syringe, needles, etc.	75,000	Jerry James Coia
56. JE Medical Supplies Phils.	9 Bayan St., SFOH, Quezon City Metro Manila, Philippines	975-766	Wholesaler	Three-fold distilled water	10,000	Jaime Aramilla
57. Aircon Laboratories, Inc.	Rosal car. Alley Sts., Pasipona Las Pinas, Metro Manila, Phils.	801-3116/9244	Wholesaler/ Manufacturer	Medical and hospital supplies	200,000	Virgilio Chacon
63. Grossworth Marketing	1164-C Del Monte Ave., SFOH, Quezon City Metro Manila, Philippines	-	Wholesaler	Medical and hospital supplies	100,000	Eduardo Taxian
65. M. G. Rodriguez Marketing	1105 Vito Cruz St. Malate Manila, Philippines	598-486	Wholesaler	absorbent gauze, surgical pads, cottons, etc.	100,000	Myrna Rodriguez
70. Angur Enterprises	2040 Eabillon St., Pandacan Manila, Philippines	-	Wholesaler/ Repacher	Lens	10,000	Armando Bando
71. NYC Lens Processors, Inc.	JE EBC Bldg. 132 C. Palanca St., Malate, Manila, Philippines	-	Manufacturer	Processing of optical lenses	900,000	Lourdes Lison
72. E. de Los Reyes Optical Laboratory	Marcos Highway, Santolan, Pasig Metro Manila, Philippines	921-6415	Processor	Optical frames	100,000	Evelyn Perez
73. S. S. A. Commercial	18 Flor Garcia Bldg., Sta. Cruz Manila, Philippines	521-9685	Wholesaler	Optical frames	4,000	Rajivwar Pajiwani

3. Most of these firms were found to be no longer operating; it thus confirms the presence of "fly-by-night" traders in the local medical equipment & supplies market. This is understandable in that the DTI list was based on a one-time registration with the department's Bureau of Domestic Trade. A more reliable directory of suppliers of medical equipment & supplies is the DQM list of accredited suppliers (EXHIBIT VI) because accreditation with the DQM is renewed every year.

Source of data: DTI

Directory of Accredited Member-Firms of the Hospital, Medical, Laboratory Equipment & Supplies Importers Association of the Phils. (HOMLESTAP), Inc. for 1988

Company Name	Address	Tel. No.	Product Line	Contact Person / Position	Telex / Fax / Cable
1. Analyst Supply House, Inc.	531 San Rafael St., Mandaluyong Metro Manila, Philippines	784-354 795-371	Laboratory instruments and chemicals	Mr. Prudente Sason - President	Telex: ITT 40404/Box 92000 Cable: AMISUP MANILA
2. Biomedical Supplies	2nd Fl., Dona Anacleto Bldg., 891 Salcedo Cor. Espana St., Manila, Philippines	731-1117 731-1120	Orthopedic implant, instruments, and disposable products	Dr. Ignacio F. Jelco - Pres. & GM	- None -
3. Consolidated Industrial Gases, Inc.	Pioneer cor. Sheridan St., Mandaluyong, Metro Manila, Phils.	787-878 787-876	Laboratory reagents and supplies	Robert J. Hetherington - President	Telex: 42456 CIGI PH Cable: CIGI PH
4. Dekila Trading	8 208 Pilar St., Mandaluyong, Metro Manila, Philippines	787-511 783-314	Laboratory instruments, chemicals and supplies	Mr. Richard A. Tee - President	Telex: 42463 Fax: 721-0736
5. Edward Keller Phils., Inc.	2723 Pasong Tamo St., Makati, Metro Manila, Philippines	818-8281	Laboratory instruments and chemicals	Aaron Gordon Wesley - President	Telex: RCA 22025 / ITT 4518/ EASTERN 63546/ Fax: 817-3421
6. Espar Medical Center, Inc.	1581-1583 Bambang St., Sta. Cruz, Manila, Philippines	711-8132 711-7286	Hospital equipment and supplies	Engr. Cesar Espirito - GM	Telex: 63199 ETPHNO PH
7. Fairbright Enterprises	6-3 Cityland Cond. IV, Valero St., Salcedo Village, Makati, Metro Manila, Philippines	815-9331	Medical equipment	Mr. Rodrigo T. Pepito - Pres. & GM	Telex: 27648 MAC PH Cable: FAIRBRIGHT MANILA
8. Fane Pathologist Lab. Supply	996 Aurora Blvd., Quezon City, Metro Manila, Philippines	921-34-82 495-9457	Laboratory diagnostic reagents	Mr. Faustino Aquino - Pres. & GM	- None -
9. Federal Medical Pharma, Inc.	171 Aurora Blvd., Quezon City Metro Manila, Philippines	785-806 784-009	Hospital, medical and laboratory equipment and supplies	Florencio C. Liu - President	Telex: 41450 FEDMDI PH Cable: FEDPHARM MANILA
10. Gateway Enterprises	5840 Panatungan St., Quezon City Metro Manila, Philippines	354-480 355-352	Hospital and medical equipment and supplies	Che Boon Lin - Pres. & GM	Telex: 42469 GATECO PH Fax: 63-2-362-1583 Cable: GATECO PH
11. Golden Bat Enterprises	32 Scout O.M. Alcaraz St., Quezon City, Metro Manila, Phils.	731-9745 731-9746	Laboratory equipment, glassware and supplies	Mr. Mariano Lee - President	Telex: 65235 GBAT PH
12. Harwell Chemicals Corp.	4161 Ponte St., Makati Metro Manila, Philippines	855-086	Laboratory chemicals and glassware equipment	Mr. Louie Wong - GM	Tlx No: 5134 GLOM MACRAY Fax: 855-161
13. Indecor Philippines, Inc.	Indecor Bldg., Ortigas Avenue San Juan, Metro Manila, Phils.	785-986 785-988	Hospital/medical/dental/laboratory equipment & supplies and selected pharmaceutical items	Jose S. Ivarro - President Mameli Ong - V P Marketing	Telex: 27591 IND PH Fax: 721-1856
14. Medical Center Trading Corp.	Pioneer St. cor. Shaw Blvd., Pasig, Metro Manila, Phils.	621-1575 789-911	Hospital and laboratory equipment	Dr. Antonio C. Macatangay - V P & GM	Telex: 43191 MEDIC PH Fax: (632) 722-8699
15. MicroLab, Inc.	1916-1926 F. B. Harrison St., Pasay City, Metro Manila, Phils.	584-358 597-876	Laboratory and hospital equipment Manufacturer of prepared slides	Mr. Hans Arber - President Mr. V. P. Mercado - E V P	Telex: 725-27503 FIM PH Fax: 525-2135 / 816-3214

16. Melave Trading, Inc.	891 EDSA, Quezon City Metro Manila, Philippines	983-216 983-219	Laboratory and hospital equipment	Mr. Estanislao I. C. Acero - Pres. Ms. Rosalina F. Acero - V.P.	Tel.: 27405 50A PH Fax: (632) 921-8261
17. One Source Scientific, Inc.	Marsilio Bldg., 400 Rizal Avenue Manila, Philippines	711-6891 711-6892	Hospital/medical/dental/laboratory equipment and laboratory chemicals	Mr. Marciano Laborada - Pres.	- None -
18. The Pharmedic Corp. (Botica de Sta. Cruz)	4th Flr., Legaspi Towers 200 Pasco de Roxas, Manila Metro Manila, Philippines	817-5536 817-5540	Laboratory and hospital equipment and supplies	Prudencio J. Tondorc - President	Tel.: 22650 00C PH Fax: 818-4188
19. R. G. Meditron, Inc.	82 Peadar St., Quezon City Metro Manila, Philippines	978-571 971-929	Medical equipment and supplies	Mr. Reynaldo Garcia - President	Tel.: 47803 00MED PH
20. Three-I Philippines	704 Aurora Blvd., Quezon City Metro Manila, Philippines	700-835 721-8352	Hospital/laboratory/medical equipment and industrial equipment	Mr. Enrique Lio - President Mr. Salvador Jaraza - Asst. M.N.	Tel.: 40018 Tix Br 2471 Fax: 721-7012
21. Xerox Systems, Inc.	Blivilla Bldg., Legaspi St., Legaspi Village, Katat Metro Manila, Philippines	818-1411 818-1414	Hospital and dental equipment	Mr. Juan Niguel Tan - Managing Director	Tel.: 44020 PH Fax: 818-6756
22. Zenith Medical Equipment, Inc.	1123 Rizal Ave., Sta. Cruz Manila, Philippines	711-7878 711-7909	Medical equipment and supplies	Mr. Juan B. Reyes - President Federico B. Reyes - E.V.P.	Tel.: 47766 20MED PH

Source: Hospital Medical Laboratory Equipment & Supplies Importers' Association of the Philippines (HOMTSIAP), Inc.

List of Selected Local Manufacturers of Medical
Equipment and Supplies, 1988

- | | |
|---|---|
| 1. Esphar Medical Center (EMC)
1425 Rizal Ave., Manila
Tel. No 711-7286/ 711-72-92
Engr. Cesar Espiritu - G.M. | Manufacturer of EMC brand hospital
equipment and apparatus: autoclave
sterilizer (electric or gas),
instrument sterilizer, distilling
apparatus, auction machine, lab oven
and lab incubator, baby incubator |
| 2. Bataan Manufacturing Co., Inc.
1146 Hermosa cor. Bagac Sts.
Manuguit Subd., Tondo, Manila
Tel. 211-043/ 215-064
267-491/ 213-924
Telex: 40122 EMIC PM
Francisco T. Sychangco
- President | Manufacturer of hospital equipment
and furnitures, EMC brand hotpacks |
| 3. Oro Medical Enterprise
1446 Rizal Ave. Sta. Cruz
Manila P.O. Box SC-317 Mla.
Tel. No. 711-7751/ 711-5977
Plant Site: 88 Molave St.
Marikina Heights, Concepcion
Marikina, Metro Manila
Tel. 947-4175
Felix E. Medel - Prop. & GM | Manufacturer of modern quality
hospital equipment |
| 4. Adamson & Adamson, Inc.
53 Col. Bonny Semano Ave.
formerly Santolan Road
Quezon City, M.M.
Tel. No. 787-746/ 787-755/ 787-758
Manuel M. Blanco - EVP & Treasurer | Manufacturer of personal and health
care, feminine hygienic, medical,
pharmaceutical, hospital and baby
products |
| 5. Johnson & Johnson (Phils.), Inc.
Km. 14 Edison Ave.
South Superhighway
Parañaque, Metro Manila
Tel. 827-7011 to 7023
Telex 45394 AQUAEUS PM
Jose Antonio Rodriguez - President | Manufacturer, wholesaler, distributor
of health care products, adhesive
bandages, pharmaceutical and hospital
products |

6. Beckton, Dickinson (Phils.), Inc. Manufacturer and distributor of a
2F Cacho Gonzales Building broad line of health care products
101 Aguirre St., Legaspi Village used by hospitals, doctors, laboratories,
Makati, Metro Manila pharmaceutical companies, medical
P.O. Box 7234 schools, dentists, etc.; gloves,
AEO-MIA Philippines protective clothing, electronic-
Tel. 818-7666/ 818-7667 medical devices
Cable: RDAPH
Telex: 64677 BDA PN
Jesus M. Fargas - Sales Manager
7. Boehringer Mannheim (Phils.), Inc. Manufacturer & distributor of
3 F Fortune Office Bldg. medical/ dental/ surgical supplies
160 Legaspi Street and pharmaceutical preparations
Legaspi Village, 1200 Makati M.M.
Tel. 810-7246
Fax: 819-3647
Paul C. Aragones
- President & General Manager
8. Philipps Group of Companies Manufacturer/ Importer/ Exporter of
2246 Pasong Tamo, Makati, MM various products, including medical
Tel. 810-0161 equipment
Telex: 66494 PUPS PN
Fax: 817-3474
Karel R. Ehrnreich
- President & General Manager
9. KONE Machineries Phils., Inc. Manufacturer/ Distributor of
TI-ABC Mile Long Bldg. clinical/ hospital facilities,
Amorosolo St., Legaspi Village among others
Makati, Metro Manila
Tel. 871-295/ 852-274/ 859-540/ 859-548
Telex: 63880 KONE PN
Fax: (632) 818-9720
Erico S. Pacaba - President

- ✓10. Associated Drugs, Inc.
222 Taft Ave., Malate, Manila
Tel. 582-731
Telex: 63302 ASDRUG PN
Cable: "ASDRUG" MANILA
Manufacturer/ Importer/
Distributor/ Dealer of hospital
equipment, supplies and health
care products
11. Rodel Hospital Equipment
Manufacturing & Supply Co.
56 West Riverside Street
SFDM, Quezon City
Tel. 988-783/ 976-838
Eddie Rodriguez - President
Alfredo Rodriguez - General Manager
Manufacturer of hospital
equipment and supplies
- ✓12. Microlab, Inc.
Pioneer St. cor. Shaw Blvd.
Mandaluyong, Metro Manila
Tel. 673-1575/ 673-1577
Telex: 722-27303 FIN-PH
Fax: 522-2135/ 819-3214
Hans Arber - President
Manufacturer of prepared
slides, Importer/ Distributor
of hospital equipment
13. General Textiles, Inc.
Textile Road
E. Rodriguez Jr. Avenue
Libis, Quezon City, M.M.
Tel. 721-92-21 to 33
Telex: 27362 GTX PH
Cable: YUJUICO Manila
Edilberto V. Yujuico
- President and General Manager
Manufacturer of dress
materials, denims and surfing
materials, bedsheets and
curtains, finished spun yarn,
among others



Republic of the Philippines
Department of Health
OFFICE OF THE SECRETARY
Manila

COMMITTEE ON SUPPLIERS ACCREDITATION
GENERAL INFORMATION

A. POLICY:

Accreditation is deemed essential to ensure that the Department of Health deals only with reliable suppliers.

B. WHO MAY APPLY:

Any reputable individual or entity interested to deal with DOH and those suppliers who wish to renew their accreditation.

C. TYPES OF ACCREDITATION:

1. Central Office Accreditation - allows accredited suppliers to join biddings conducted at the DOH Central Office and to serve all DOH agencies nationwide.
2. Regional Accreditation - allows accredited suppliers to serve all DOH agencies nationwide but not to participate in biddings conducted at Central Office.

D. WHERE TO APPLY:

Application for accreditation may be made from any of the following places:

1. DOH Central Office, San Lazaro Compound, Sta. Cruz, Manila. The Central Office can issue both "Central Office Accreditation" or "Regional Accreditation".
2. Office of the Regional Director, DOH regional health offices nationwide. The DOH regional offices can issue only "Regional Accreditation".

E. HOW TO APPLY AT THE CENTRAL OFFICE:

1. List of requirements may be obtained at the Radiation Health Service, DOH Compound, from any of the following members of the Committee on Suppliers Accreditation (CSA) Secretariat:
 - a) Ms. Priscila Dela Rora, San Juan
 - b) Mr. Charlie S. Lagarde
 - c) Mr. Larry C. Rubian
 - d) Ms. Annabelle B. Chua
2. An accreditation must be applied for each product/service category being carried.
3. Pay non-refundable application fee of P50.00 per product/service category at the Cashier's Office, Administrative Service Bldg., DOH Compound.
4. Present Official Receipt to the Secretariat of the Radiation Health Service - DOH to get application form (CSA Form # 2) for each category being applied for.

page two
general information.

5. Submit CSA Form #2 together with ~~All~~ the required supporting documents. Only those application with complete requirements will be accepted and will be processed by the Committee.

F. HOW TO APPLY AT THE REGIONAL OFFICES:

1. List of requirements may be obtained at the Office of the Regional Director, DOH regional health offices nationwide or at such other places as may be designated.
2. An accreditation must be applied for each product/service category being carried.
3. Pay non-refundable application fee of P50.00 per product/service category at the Cashier's Office of each region.
4. Present Official Receipt to the Secretariat of the Regional Health Office - DOH concerned, to get application form (CSA Form #2) for each category being applied for.
5. Submit CSA Form #2 together with all the required supporting documents. Only those application with complete requirements will be accepted and will be processed.

G. WHEN TO EXPECT DECISIONS:

1. Applicants will be notified in writing about the status of application within three (3) weeks after date of submission.
2. Disapproved applications will be returned to applicants and they can be reconsidered upon compliance with the requirements.
3. A certificate of Accreditation will be issued to approved applications.

II. VALIDITY OF ACCREDITATION:

The Certificate of Suppliers Accreditation is valid for one(1) year from date of issuance.

I. REVOCATION OF ACCREDITATION:

Ocular inspection may be conducted as the need arises and accreditation may be revoked anytime for non-compliance of requirements.

/cpg

CSA Revised Form #3d
1/14/88

Department of Health
COMMITTEE ON SUPPLIERS ACCREDITATION

REQUIREMENTS FOR SUPPLIERS ACCREDITATION
OF HOSPITAL/LABORATORY/MEDICAL/DENTAL EQUIPMENT

I. DOCUMENTS FOR SUBMISSION:

Upon application, the applicant for accreditation shall submit copies of the following:

A. Legal and Documentary Requirements:

1. For Single Proprietorship:

- a. Registration certificate of business name from Bureau of Domestic Trade
- b. Mayor's permit

2. For Corporation or Partnership:

- a. Mayor's permit
- b. Certificate of registration with Securities and Exchange Commission

B. Financial Capability:

- 3. Income tax return for the last two (2) years
- 4. Audited financial statement for the last two (2) years

C. Service Capability:

- 5. List of product line or items being carried for sale
- 6. If dealer/distributor, submit a copy of the dealership/distributorship agreement with principal for products/items concerned

D. Physical Plant/Office:

- 7. Location map of office and storage (to guide inspection team)
- 8. Floor plan, including dimensions of office and storage area in relation to adjacent residences or offices
- 9. One recent photo for each of the following areas: working, office and storage

E. Track Record:

- 10. List of major customers served for the last two (2) years

II. MINIMUM REQUIREMENTS:

- 11. Networth of \$500,000.00 at the time of application (for Central Office Accreditation)
Networth of \$375,000.00 at the time of application (for Regional Accreditation)
- 12. List of four (4) full time personnel (name & designation)
- 13. Brochures of all products/equipment being carried

Note: For renewal of application, present the original copy of 1987 Certificate of Suppliers Accreditation.

CSA Revised Form #3e
1/14/88

Department of Health
COMMITTEE ON SUPPLIERS ACCREDITATION
REQUIREMENTS FOR SUPPLIERS ACCREDITATION
OF HOSPITAL/LABORATORY/MEDICAL/DENTAL SUPPLIES

I. DOCUMENTS FOR SUBMISSION:

Upon application, the applicant for accreditation shall submit copies of the following:

A. Legal and Documentary Requirements:

1. For Single Proprietorship:

- a. Registration certificate of business name from Bureau of Domestic Trade
- b. Mayor's permit

2. For Corporation or Partnership:

- a. Mayor's permit
- b. Certificate of registration with Securities and Exchange Commission

B. Financial Capability:

- 3. Income tax return for the last two (2) years
- 4. Audited financial statement for the last two (2) years

C. Service Capability:

- 5. List of product line or items being carried for sale
- 6. If dealer distributor, submit a copy of the dealership/distributorship agreement with principal for products/items concerned
- 7. Valid license to operate from the Bureau of Food & Drugs
- 8. Valid BFAD product registration for each item carried for sale which are enumerated in the attached list

D. Physical Plant/Office:

- 9. Location map of office and storage (to guide inspection team)
- 10. Floor plan, including dimensions of office
- 11. One recent photo for the working/office area

E. Track Record:

- 12. List of major customers served for the last two (2) years

II. MINIMUM REQUIREMENTS:

- 13. Networth of \$200,000.00 at the time of application (For Central Office Accreditation)
- 14. Networth of \$150,000.00 at the time of application (For Regional Accreditation)
- 15. List of three (3) full time personnel (name & designation)

Note: For renewal of application, present the original copy of 1987 Certificate of Suppliers Accreditation.

/cpg

Directory of DOW-Accredited Suppliers of Medical Equipment and Supplies, 1986

COMPANY NAME	ADDRESS	TELEPHONE	TELEX	FAX / CABLE	CONTACT PERSON / POSITION	PRODUCT LINE (S)
1. Cysar International, Inc.	Sunvar Cond., 6rd Flr., Luna St., Pasay City, Metro Manila Phils.	833-7841 831-5338	27840	Fax: (632) 831-5824	Mr. Syril Ko President	Equipment and Supplies
2. Orto Medical Enterprise	1446 Rizal Ave., Sta. Cruz, Manila, Philippines	711-7751 711-5777	None	None	Mr. Felix Medel President	Equipment
3. Cebu Oxygen & Acetylene Company, Inc.	110 Legaspi Bldg., Legaspi St., Makati Metro Manila, Phils.	816-2881 816-2886	79491	Fax: 832-79491	Mr. Nancel N. Moraza President	Equipment
4. C.O. Acero Enterprises	60 Acero Bldg., 891 CDSA, Quezon City, N.M. Phils.	983-216 983-219	RCA 27495 GDA PH	Fax: (632) 921-0261	Mr. Esteban T.C. Acero President	Equipment
5. Federal Medical and Pharmaceutical, Inc.	171 Aurora Blvd., San Juan, Metro Manila, Philippines	786-006 786-009	41450 FEOMPH PH	Cable: FEOMPH MANILA	Mr. Florencio C. Lio President	Equipment and Supplies
6. Associated Drugs, Inc.	2222 Taft Avenue, Makati, Manila, Philippines	587-731 587-734	63302 ASDRUG PH	Cable: ASDRUG MANILA	Mr. Lino Ed. Lio President	Equipment and Supplies
7. International Scientific & Ind'l Instruments, Inc.	Suite 210, Sunrise Cond., Ortigas Ave., San Juan PH	721-1610 796-047	27677 / 22031	Fax: 721-4151	Mr. Rogelio S. Cuzon President	Equipment
8. Vana Chemodites Import- Export	52C M. Clara St., Quezon City, Metro Manila, Philippines	731-2811	None	None	Mr. Alfredo Li General Manager	Equipment and Supplies
9. Philippine Medical Dental Specialties	435 Platerias St., Quiapo, Manila, Philippines	405-064 403-426	None	None	Mr. Mariano Saeido General Manager	Equipment and Supplies
10. Philusa Corporation	28 Shaw Blvd., Pasig, Metro Manila, Philippines	673-1981 673-1990	43101 MERCURY PH	Fax: (632) 722-0699	Mr. Vivan Que Arzona President	Equipment and Supplies
11. Blue Sky Trading Co., Inc.	416 Osvarinas St., Biendo, Manila, Philippines	471-926 471-929	None	None	Mr. Alfred Tantianse General Manager	Equipment and Supplies
12. Filray International, Inc.	4th Flr., Corinthian Plaza, Pasco de Roxas, Makati PH	817-0270 817-0271	None	Fax: 817-0248	Mr. Raon D. Mescalado President	Equipment
13. B. Victoria Trading	1440 M. Matividad, Manila, Philippines	711-9534 711-9517	None	None	Mr. Bienvenido Victoria Owner	Equipment and Supplies
14. Consolidated Industrial Gases, Inc.	CIGI Bldg., Pioneer St., Mandaluyong, PH, Phils.	773-781 773-793	42456 CIGI PH	Cable: CIGFIL	Mr. Robert Metherington President	Equipment
15. Solid "R" Enterprises	Rd 208, Jennie Bldg., Quiri- ceda St., Sta. Cruz, Manila	975-424 711-0276	None	None	Ms. Isabel R. Reyes Owner	Equipment and Supplies
16. The Pharmedic Corporation	4th Flr., Legaspi Towers, Pasco de Roxas, Makati, PH	817-5536 817-5540	22650 DOC PH	Fax: 818-4188	Mr. Prudencio J. Teodoro President	Equipment and Supplies
17. Gateway Ent. Co., Inc.	58-60 Panalteran St., Quezon City, Metro Manila, Phils.	342-1451 355-352	42469 GATECO PH	Fax: (632) 342-1543	Mr. Cho Boon Lim General Manager	Equipment and Supplies
18. Continental Hosp. Supplies	305-306 HWC Bldg., 942 J. L. Escoda St., Ermita, Manila	522-3755	None	None	Mr. Mario Anacleto P. De Vera - President	Equipment and Supplies
19. Levin's Incorporated	3F R. Syjuco Bldg., 993 Echa, Biliran, Quezon City, PH	974-475 974-476	65507 LEVIN PH	Fax: (632) 984-841	Mr. Antonio I. Tansco President	Equipment
20. Dokila Trading Corporation	208 Pilar St. Mandaluyong, Metro Manila, Philippines	707-511 707-515	42463	Fax: 721-0736	Mr. Roland A. Igo President & GM	Equipment

COMPANY NAME	ADDRESS	TELEPHONE	TELEX	FAX / CABLE	CONTACT PERSON / POSITION	PRODUCT LINE (S)
21. One Source Scientific, Inc.	Marlin Bldg., 880 Rizal Ave., Sta. Cruz, Manila	711-6891 711-6893	None	None	Mr. Mariano Labrador President	Equipment and Supplies
22. Telecommunications & Computer, Inc.	2F Kalar-Ledesma Bldg., 117 Maboa St., Legaspi Vill., Makati	819-3141 819-3255	23717 TCII PH	Fax: (632) 810-5660	Mr. Joel J. Marciano President	Supplies
23. Medcor Philippines, Inc.	Medcor Bldg., Ortigas Avenue, Greenhills, San Juan, MW, Phils.	785-786 785-788	22591 NDR PH	Fax: 721-1850	Mr. Jose S. Lavarro President	Equipment and Supplies
24. MPT Export-Import, Inc.	830 Valencia St., San Francisco del Monte, Quezon City, MW	998-362 981-009	None	None	Ms. Priscilla Fernandez General Manager	Equipment and Supplies
25. Racoser, Inc.	9500-06 Ambing St., San Antonio Village, Makati, MW, Phils.	878-935	None	None	Mr. Egidio Decamay President	Supplies
26. Ethylon Trading Int'l Corp.	810 Ricardo St., Roosevelt Ave., Quezon City, MW, Phils.	965-344	None	None	Ms. Jersita G. Javier President	Equipment and Supplies
27. Technomed Int'l, Inc.	4F Medcor Bldg., Ortigas Ave., Greenhills, San Juan, MW, Phils.	721-1860	22591	Fax: 721-1850	Mr. Manuel S. Ong President	Equipment and Supplies
28. The Analyst Supply House, Inc.	531 San Rafael St., Mandaluyong, Metro Manila, Philippines	784-354 785-694	LIT 46464 Tlx Bx 8 2500	Cable: ARASUP MANILA	Mr. Prudencio H. Sason President	Equipment
29. Zenith Medical Equipment, Inc.	1123 Rizal Ave., Sta. Cruz, Manila, Philippines	711-7878 711-0870	42706 ZEMED PH	None	Mr. Juan B. Reyes General Manager	Equipment and Supplies
30. De Leon Import & Export Co., Inc.	Odolco Bldg., 128 Kalayaan Ave., Diliman, Quezon City, MW, Phils.	922-1604	None	None	Mr. Oscar M. De Leon President	Supplies
31. Riestler Philippines, Inc.	111 Congressional Rd., Proj. 8, Quezon City, MW, Phils.	992-449	None	None	Mr. George G. Precilla President	Supplies
32. ELC Marketing, Inc.	105 Eaming Rd., Quezon City, Metro Manila, Philippines	975-744 974-855	None	None	Mr. Ching Tian Chiong President	Equipment and Supplies
33. Medical Center Trading Corp.	Pioneer St. cor. Shaw Blvd., Pasig, Metro Manila, Phils.	673-1575 673-1577	43191 MEDIC PH	Fax: (632) 722-0699	Ms. Vivian Que Atcona President	Equipment and Supplies
34. Esphar Medical Center, Inc.	1425 Rizal Ave., Sta. Cruz, Manila, Philippines	711-7292 711-7286	63199 ETPHMD PH	None	Engr. Cesar Espiritu General Manager	Equipment and Supplies
35. Metro Drug, Inc.	7252 Moleguy St., Makati Metro Manila, Philippines	874-950 880-906	None	None	Mr. Felipe S. Gutierrez General Manager	Supplies
36. St.udent Commercial Company	8204 Mat'l. Res. Ctr. Bldg., 567 G. Puyat St., Sta. Cruz, Manila	495-996 470-946	None	Fax: (632) 955-5996	Mr. Armando Uno President	Equipment and Supplies
38. M.C. Diaz Enterprises	8305 Dona Corneilla Bldg., 1718 Rizal Ave., Sta. Cruz, Manila	711-8966	None	None	Ms. Nayette Diaz Owner	Supplies
39. Blue Ridge Pharmaceuticals	85 Apo St., Mandaluyong, Metro Manila, Philippines	713-372 721-3008	None	Fax: (632) 721-3008	Mr. Jonan Arabaca President & G.M.	Equipment and Supplies
40. Harsan & Co., Inc.	San. Gil J. Puyat Ave., Makati Metro Manila, Philippines	872-831 889-731	22040 HCSN PH	Cable: HARSANINC	Mr. George W. Drysdale President	Equipment and Supplies
41. Microlab, Inc.	1916 FB Harrison St., Pasay City Metro Manila, Philippines	586-479 586-473	722-27303 FIM PH	Telox: 522-2135 819-3214	Mr. Hans Arber President	Equipment and Supplies
42. Fairbright Enterprises, Inc.	63 Cityland Comd. IV Valero St., Salcedo Vill., Makati, MW	815-9331 815-9332	27448 MAC PH	Cable: FAIRBRIGHT MANILA	Mr. Rodrigo T. Papito President & G.M.	Equipment and Supplies
43. AC Meditron, Inc.	LFC Bldg., 882 Panay Avenue, Quezon City, Metro Manila	978-571 978-572	42803 RCHD PH	None	Mr. Reynaldo Garcia President	Equipment and Supplies

COMPANY NAME	ADDRESS	TELEPHONE	TELETYPE	FAX / CABLE	CONTACT PERSON / POSITION	PRODUCT LINE (S)
44. Philab Industries, Inc.	1155 Pasong Tiao, Makati, Metro Manila, Philippines	875-423 816-3946	22691 PHILAB PH	Fax: 816-3946	Mr. Hector Haysano President & GM	Supplies
45. Manila Cardiovascular & Critical Products, Inc.	1184 P.O. Gonzales Ave., Quezon City, Metro Manila, Phils.	943-637	42851 MACARE PH	Cable: MACARE	Ms. Florical De Pano Owner & GM	Equipment and Supplies
46. Instruex Supplier, Inc.	No 301, INS Pacific Bldg., 231 Salcedo St., Legaspi Vill., MLI.	817-9572 817-8849	63464 INSTX PH	Fax: (637) 817-6849	Atty. Primo D. Mercado President	Supplies
47. Rodol Hospital Equipment Mfg & Supply Co., Inc.	No. 56 West Riverside St., SFM, Quezon City, Metro Manila, Phils.	988-783 976-838	None	None	Mr. Eddio Rodriguez President	Equipment
48. Dynalab Corporation	355 P. Tuzon St. Cor. 21st Ave., Cubao, Quezon City, PH, Phils.	922-9154 922-9782	742-42000 PH	Fax: 722-007 Attn: DYNALAB	Mr. Ernesto M. Estacio President & GM	Equipment and Supplies
50. Harmony Trading, Inc.	R204 ITC Bldg., Gil Puyat Ave., Makati, Metro Manila, Phils.	878-494 857-341	43281 HARMST PH	Cable: JOMARCA	Mr. Jose Martin Corrado President	Equipment and Supplies
51. Phillips Industrial Int'l, Inc.	2246 Pasong Tiao, Makati, Metro Manila, Phils.	818-9141 810-9147	66494 PLIPS PH	Fax: 817-5474	Mr. Earel B. Eberich President & GM	Equipment
52. Denteco Center Company	579-80 Gonzalo Puyat St., Sta. Cruz, Manila, Phils.	403-170	None	None	Mr. Alex Ching Que General Manager	Equipment and Supplies
53. FVA Export-Import Trading, Inc.	No 399 Cityland Cond. III, Herrera St., Makati, PH	853-658 878-214	None	None	Mr. Francisco Y. Abalos President & GM	Equipment and Supplies
54. MCS Biochemicals Co., Inc.	No A-207, Benlar Bldg., 1184 Quezon Ave., Quezon City, PH	992-441	None	None	Mr. Avelino L. Sta. Maria President	Supplies
55. Air Commercial	1543 Quezon Ave., Quezon City Metro Manila, Phils.	921-6813 921-0099	None	None	Mr. Samuel Chang General Manager	Supplies
56. Inter-Urban Marketing Corp.	1930-E Bonada St., Pasay City Metro Manila, Phils.	521-8279 521-8264	None	None	Mr. Valentino G. Prieto, Sr. - President	Supplies
57. Unicenta Industries, Inc.	219 Reposo St., Ben Air Vill., II Makati, Metro Manila, Phils.	854-564 878-7833	None	None	Ms. Jocelyn Duran General Manager	Supplies
58. Faso Pathologist Lab Supply	54 Osena St., Lilo Roses Subd., Ortigas Ave., Rosario, Pasig, PH	695-9457 921-2483	None	None	Mr. Faustino Aquino President	Supplies
59. Columbia Trading Co., Inc.	716 R. Nidalgo St., Quiapo Manila, Philippines	488-041 471-386	None	None	Mr. Jose S. Tan General Manager	Supplies
60. Photo King Marketing Corp.	117 West Ave., Quezon City Metro Manila, Phils.	972-9201 922-9208	None	None	Mr. Jaime Chua President	Supplies
61. Conlica, Incorporated	883 Teluan St., Sta. Cruz, Metro Manila, Phils.	493-058 407-793	None	None	Mr. Ben S. Tan President & GM	Supplies
62. Ker Trading	No 400, F. Delta Bldg., West Ave., Quezon City, Metro Manila, Phils.	922-0085 980-651	None	None	Ms. Eleanor B. Paradero Owner	Supplies
63. Jaler-Marketing Phils., Inc.	Medcor Bldg., Ortigas Ave., Greenhills, San Juan, PH	785-988	22591 JMR PH	Fax: 721-1850	Mr. Jose S. Lavarro President	Supplies
64. Arnelle's Enterprises	12 Troy Compound, Tandang Sora Ave., Quezon City, PH	922-2519 481-552	None	None	Ms. Concepcion R. Cruz General Manager	Supplies
65. Nuply Leaf Equipment & Services, Inc.	JA Palacios Bldg., P. Burgos St., Balangas City, Philippines	725-3642	None	None	Mr. Abalaro B. Perez President	Supplies

COMPANY NAME	ADDRESS	TELEPHONE	TELEX	FAX / CABLE	CONTACT PERSON / POSITION	PRODUCT LINE (S)
66. Johnson & Johnson Phils., Inc.	Edison Road, Parañaque, Metro Manila, Philippines	827-7011 827-7023	45594 AQUAEUS PM	None	Mr. Jose Antonio Rodriguez President	Supplies
67. Cu Unjieng Investments, Inc.	102 Filipinas Life Bldg., Ayala Ave., Makati, MH	818-0770 818-0779	None	None	Mr. Guillermo Cu Unjieng General Manager	Supplies
68. Instruchae, Inc.	Rm 508, CLMC Bldg., Greenhills, Mandaluyong, Metro Manila, Phils.	771-0115 783-275	None	None	Mr. Bacon Bernardo President - B & M	Supplies
69. Quali Pharms Phils.	870 Kasipagan St., Plainview, Mandaluyong, Metro Manila, Phils.	781-101	None	None	Mr. Manuel L. Detabali Owner	Supplies
70. Cirinar Laboratories, Inc.	216 A. Villareal St., Pasay City Metro Manila, Philippines	831-1404 831-9656	27840	Fax: (652) 831-5824	Mr. Syril Ko President	Supplies
71. Niphal Health Care Corp.	3rd Flr., Erekal Bldg., 855 Pasay Road, Makati, Metro Manila, Phils.	818-1373 810-9318	None	None	Mr. Menlo D. Hernandez President	Supplies
71. Dispo-Philippines, Inc.	2nd Flr., SAC Bldg., 228 Ortigas Ave., Greenhills, San Juan, MH	721-1513 721-1965	None	None	Mr. Marcelo G. Sanchez, Jr. President	Supplies
72. Tise Trading International	Rm 208-209, Don Santiago Bldg., 1344 Taft Ave., Manila, Phils.	521-2483	None	None	Ms. Mirrian E. Orrais Owner	Supplies
73. Gold L Trading	Rm 306, Arnes's Bldg., 142 Esmas Rd., Quezon City, Metro Manila	921-6030	None	None	Manila L. Bartolome Owner	Supplies

SOURCE: Committee on Suppliers Accreditation, Department of Health (DOH)

Hospital Standard Requirements for Technical Equipments & Instruments

TECHNICAL EQUIPMENT & INSTRUMENTS	QUANTITY REQUIRED				
	PRIMARY	SECONDARY	TERTIARY PROV'L.	TERTIARY REG'L	TERTIARY MED.CTR.
A. OUTPATIENT CARE:					
1. MEDICINE					
Stethoscope	1	1	2	2	3
Sphygmomanometer	1	1	2	2	3
ECG Machine	0	0	0	1	1
Proctosigmoidoscope	0	0	0	1	2
Ultra violet lamp	0	0	1	2	2
EEG Machine	0	0	0	1	1
Echogram	0	0	0	0	1
Tuning Fork	1	1	1	2	2
Neurological hammer	1	1	1	1	1
Clinical Scale	1	1	1	1	2
Examining light	1	1	1	2	2
2. SURGERY					
Eye speculum	0	0	1	1	1
Dissecting scissors (curved)	1	1	1	2	3
Surgical scissors (straight)	1	1	1	2	3
Nasal snare	0	0	1	2	2
Retractor	1	1	1	2	3
Towel clips	4	4	4	8	8
Surgical knife	4	1	2	3	4
Tissue forcep	1	1	2	3	4
Stitch remover	1	1	1	2	2
Eye curette	0	0	1	2	2
Bayonet forcep	0	0	1	2	2
Irish scissor	0	0	1	2	2
Protractor	0	0	1	2	2
Allis forcep	0	1	1	3	3
Mosquito forcep (straight & curved)	0	4	2	8	8
Needle holder	1	1	6	3	4
Tongue depressor (metal)	1	2	2	3	3
Probe	1	2	2	3	3
Grove director	0	1	2	3	3
Nasal speculum	0	1	2	2	3
Chalazation forcep	0	0	1	2	2
Septal forcep	0	0	1	2	2
Cast cutter	0	1	1	2	3
Stethoscope	1	1	1	1	1
Sphygmomanometer	1	1	1	1	1
3. OBSTETRICS & GYNECOLOGY					
Stethoscope	1	1	2	3	3
Sphygmomanometer	1	1	2	3	3
Weighing scale	1	1	1	2	2
Vaginal speculum	1	1	1	2	2
Uterine sound	1	1	1	2	2
Hegars dilators	1	1	1	2	2
IUD removal hook	1	2	2	3	3
Examining table/stirrup	1	1	1	2	2
Mayo scissor curve	1	2	2	3	4
Tenaculum forcep	1	1	1	2	2
Ovum forcep	1	1	1	2	2
Punch biopsy	1	1	1	2	2
4. PEDIATRICS					
Weighing Scale	0	1	1	2	2
Sphygmomanometer with pedia cuff	1	1	1	2	2
Stethoscope	1	1	1	2	2
Neurological hammer	0	0	1	1	1

TECHNICAL EQUIPMENT & INSTRUMENTS	QUANTITY REQUIRED				
	PRIMARY	SECONDARY	TERTIARY PROV'L.	TERTIARY REG'L	TERTIARY MED. CTR.
5. EYE, EAR, NOSE & THROAT					
Lens	0	0	0	1	1
Chalazion set	0	0	0	1	1
Trial lens	0	0	0	1	1
Opthalmoscope set	0	0	1	1	1
Eye speculum (lid retractor)	0	1	1	2	2
Refraction unit	0	0	0	1	1
Tonometer	0	0	0	1	1
Perimeter	0	0	0	1	1
Audiometer	0	0	0	1	1
Proitz apparatus	0	0	0	1	1
Head mirror	0	0	1	1	2
Otoscope set	0	1	1	1	1
Laryngeal mirror	0	1	1	1	2
Nasal speculum	0	1	1	1	2
Crocodile forcep	0	1	1	1	2
Bayonet forcep	0	1	1	1	2
Aural speculum	0	1	1	1	2
Tongue depressor (metal)	1	1	1	1	2
Serumenspoon	1	1	1	1	2
Iris scissor	0	0	1	1	2
Stitch remover	0	0	1	1	2
Iris forcep	0	1	1	1	2
Thumb forcep	0	1	1	1	2
Eye curette	1	1	1	1	2
Probe	0	1	1	1	2
Scalpel	1	1	1	1	2
6. DENTAL HEALTH CLINIC					
Dental chair, hydraulic, adjustable	0	1	1	2	3
Amalgamator, electric complete with timer & water dispenser	0	1	1	2	2
Instrument Sterilizer	0	1	1	2	2
Dental Unit w/ electric motor	0	1	1	2	2
Pick-up forcep	0	1	1	1	1
Forcep, rongeur (bone)	0	1	1	2	3
Forcep, extracting upper	0	1	1	2	3
Forcep, Molar upper	0	1	1	2	3
Forcep, lower extracting	0	1	1	2	3
Forcep, lower molar 1st and 2nd	0	1	1	2	3
Forcep, lower root ragment	0	1	1	2	3
Forcep, lowback	0	1	1	2	3
Burnisher, eggshape double end	0	2	2	3	3
Scissor gun	0	1	1	2	3
Scalpel w/ blade	0	1	1	2	3
Explorer double end	0	1	1	2	3
Elevator (Dr. Walter F. Barry)	0	1	1	2	3
Elevator (Ubeco Nos. 1 & 2)	0	1	1	2	3
Elevator (cross bar right & left)	0	1	1	2	3
Elevator straight with cross bar handle	0	1	1	2	3
Cotton Pliers SSW No. 317	0	1	1	2	3
Excavator (disk-shape blade No. 89)	0	1	1	2	3
Portable X-ray for Dental	0	1	1	2	3
Excavator (right-edge-end)	0	1	1	2	3
Excavator (left-edge-end)	0	1	1	2	3
Excavator (double-end)	0	1	1	2	3
Spatula, dental	0	1	1	2	3
Cock's syringe, positive lock with long short hubs	0	1	1	2	3
Curette No. 1 SSW termo	0	1	1	2	3
Curette preiodental	0	1	1	2	3
Bone file SSW No. 11	0	1	1	2	3
Bone ballet SSW	0	1	1	2	3
Mouth mirror with handle	0	1	1	2	3

TECHNICAL EQUIPMENT & INSTRUMENTS	QUANTITY REQUIRED				
	PRIMARY	SECONDARY	TERTIARY PROV'L.	TERTIARY REG'L	TERTIARY MED.CTR.
B. IN-PATIENT					
1. MEDICINE					
Sphygmomanometer	0	1	1	2	2
Suction apparatus	0	1	1	1	2
Weighing scale	0	1	1	1	1
Steam inhalator	0	1	1	1	1
Neurological hammer	0	1	1	2	2
Tuning fork	0	1	1	2	2
2. SURGERY					
Operating table, hydraulic type	1	1	2	3	4
BP Apparatus with stand/stethoscope	1	1	2	3	3
Oxygen apparatus complete w/ attachment	1	1	2	4	4
Major operating light, shadowless	1	1	2	3	4
Minor operating light, shadowless	1	0	1	2	2
Spotlight with stand, gooseneck	1	1	2	3	4
Instrument cabinet	1	1	2	3	4
Instrument table	1	1	2	3	4
Suction pressure unit heavy duty	0	1	2	3	4
Portable sprayer, inhaler	0	1	2	3	4
Resuscitator	0	0	1	1	2
Emergency light service	1	1	2	3	4
Autoclave	1	1	2	3	4
Electrocautery machine	0	0	1	2	2
Pleural suction apparatus	0	0	1	1	8
Scalpel handle (3 & 4)	1	2	4	6	16
Mayo scissor (curve & straight)	2	4	8	1	16
Tissue forcep (with and without teeth)	2	4	8	1	8
Metz scissor	1	2	4	6	8
Allis clamp	1	2	4	6	48
Kelly hemostat clamp (straight & curved)	4	12	24	36	48
Mosquito clamp (straight & curved)	4	12	24	36	8
Ochners' clamp (straight & curved)	1	2	4	6	8
Scissor's 8" long	1	2	4	6	8
Babcock 8" long	1	2	4	6	8
Towel clip	4	4	8	12	16
Hoisted clamp 8" long	2	2	4	6	8
Mixter clamp	0	0	2	4	6
Balfour retractor, self-retaining	1	1	1	2	4
Skin retractor	1	2	4	6	8
Appendical retractor	1	2	4	6	8
Ribbon retractor	1	2	4	6	8
Double end-Richardson retractor	0	0	1	2	4
Single-end-Richardson retractor	0	0	1	2	4
Big bandage scissor for caesarian section	1	1	2	4	6
Sponge forcep	1	2	4	6	8
Needle holder "8" long	2	2	4	6	8
Instruments sets	1	2	4	6	8
Surgical dissection (laparotomy)	0	1	1	2	3
Bone instrument	0	0	1	2	2
Brain instrument	0	0	0	1	1
Thoracic instrument	0	0	0	1	1
Gastro-intestinal instrument	0	0	1	2	2
Eye instruments	0	0	0	1	2
EENT instruments	0	0	1	1	2
Diagnostic instrument					
Esophagoscopy apparatus	0	0	0	1	2
Bronchoscopy	0	0	0	1	2
Proctoscopy	0	0	1	2	2
Gastrosocopy	0	0	0	1	2
Cystoscopy	0	0	0	1	2
Panendoscopy	0	0	0	1	1
Resectoscopy	0	0	0	0	1
Angiography	0	0	0	0	1

TECHNICAL EQUIPMENT & INSTRUMENTS	QUANTITY REQUIRED				
	PRIMARY	SECONDARY	TERTIARY PROV'L.	TERTIARY REG'L	TERTIARY MED. CTR.
3. EYE, EAR, NOSE & THROAT					
Mosquito clamp	0	0	1	1	2
Allis forcep	0	0	1	1	2
Conjunctival scissors	0	0	1	1	2
Chalazion Forcep	0	0	0	1	2
Ophthalmoscope	0	0	1	1	2
Eye speculum (lid retractor)	0	0	1	1	2
Tonometer	0	0	1	1	2
Otoscope set	0	0	1	2	2
Head mirror	0	1	1	2	2
Nasal speculum	0	0	1	2	2
Nasal dressing forcep	0	0	2	4	6
Nasopharyngeal biopsy forcep	0	0	1	2	2
Laryngeal mirror	0	0	1	2	2
Aural speculum	0	0	1	2	2
Suction apparatus	0	0	1	1	1
4. OBSTETRICS & GYNECOLOGY					
Vaginal speculum	1	1	2	3	3
Pick up forcep	1	2	2	4	4
Surgical knife holder	2	2	4	6	6
Tissue forcep	2	2	4	6	6
Stitch remover	1	1	2	3	4
Uterine forcep	1	1	2	2	3
OB forcep	1	1	1	2	3
Ovum forcep	1	1	1	2	3
Tenaculum	1	1	1	2	3
Allis forcep	1	2	4	6	8
Hepler round nose forcep	1	2	4	6	8
Weighing scale	0	1	1	1	1
Stethoscope	0	1	2	3	3
Sphygmomanometer with stand	0	1	2	3	3
Examining table with stirrup	0	1	2	3	3
Knife handle	0	2	4	6	8
Mayo scissor curved	0	2	4	6	8
Biopsy forcep	0	0	1	2	2
Urine sound	0	1	2	3	4
Hegars/ guddle's dilator	0	1	1	2	3
IUD removal hook	0	2	2	4	4
Resuscitator	0	1	1	2	2
Suction pressure unit with stand	0	1	1	2	3
Obstetrical table, hydraulic	0	1	1	2	2
Operating roomlight shadowless	0	1	1	2	2
Instrument table	0	1	1	2	3
Fetuscope	0	1	1	1	1
D&C set	0	1	2	2	2
Delivery set	0	1	2	3	4
Perineoraphy scissor	0	1	2	2	3
Perineum light	0	1	1	2	2
5. PEDIATRICS					
Stethoscope	0	1	2	2	2
Sphygmomanometer with pedia cuff	0	1	2	2	2
Infant scale	0	1	1	2	2
Instrument sterilizer	0	1	1	2	2
Nebulizer	0	1	1	2	2
Baby incubator with oxygen limiting device	0	1	1	2	4
Bottle sterilizer	0	1	1	1	1
Neurological hammer	0	1	1	2	2
Oxygen tent	0	0	2	3	3
Resuscitator, portable	0	1	1	2	2
Suction apparatus	0	1	1	2	2
Photo therapy	0	0	0	1	1
Surgical scissor	0	1	2	2	4

TECHNICAL EQUIPMENT & INSTRUMENTS	QUANTITY REQUIRED				
	PRIMARY	SECONDARY	TERTIARY PROV'L.	TERTIARY REG'L	TERTIARY MED. CTR.
C. SPECIAL PATIENTS AREA					
1. RECOVERY ROOM					
Stethoscope	0	0	2	3	4
Sphygmomanometer	0	0	2	3	4
Respirator	0	0	2	3	4
Suction apparatus	0	0	1	2	3
Gomeo suction	0	0	1	2	3
Emerson pump	0	0	1	1	1
Cutdown set	0	0	1	2	3
Tracheotomy set	0	0	1	2	3
Lumbar set	0	0	1	2	3
2. INTENSIVE & CORONARY CARE UNIT					
Electromanometer	0	0	0	1	2
Cardioscope	0	0	0	1	2
Central monitoring	0	0	0	2	4
Respirator	0	0	1	2	4
Suction apparatus	0	0	1	2	3
Defibrillator	0	0	1	1	2
ECG Machine	0	0	1	1	1
Temporary pacemaker	0	0	0	0	1
Stethoscope	0	0	1	2	2
Sphygmomanometer	0	0	1	2	2
Gomeo suction	0	0	0	1	1
Laryngoscope	0	0	0	1	1
Emerson pump	0	0	1	2	2
Cutdown set	0	0	1	2	2
Tracheotomy set	0	0	1	2	2
Lumbar set	0	0	1	2	2
3. DIALYSIS UNIT					
Dialysing machine set	0	0	0	0	1
Penal dialysis set	0	0	0	0	1
Hemodialysis set	0	0	0	0	1
4. ENDOSCOPY UNIT					
Fibrooptic esopandoscope	0	0	0	1	2
Forward viewing gastroscope	0	0	0	1	2
Duodenoscope	0	0	0	1	2
Coloscopy	0	0	0	1	2
Peritoneoscope	0	0	0	1	2
Proctosigmoidoscope	0	0	1	1	2
5. PULMONARY UNIT					
S/OOD - Gas analyzer (PD2 PCO2 PH)	0	0	0	0	1
Spirosetry	0	0	0	0	1
Ventillators	0	0	0	0	1
Volume-limited ventilators	0	0	0	0	1
Tracheostomy set	0	0	0	0	1
Bronchoscopy set	0	0	0	0	1
Laryngoscopy with laryngoscope blades	0	0	0	0	1
D. ANESTHESIOLOGY					
Anesthesia apparatus surgical type	1	1	2	3	4
Anesthist table	1	2	3	5	7
Anesthesia apparatus, OB type	0	1	1	2	3
Laryngoscope	1	1	1	2	2

TECHNICAL EQUIPMENT & INSTRUMENTS	QUANTITY REQUIRED				
	PRIMARY	SECONDARY	TERTIARY PROV'L.	TERTIARY REG'L	TERTIARY MED. CTR.
E. ANCILLARY SERVICE					
1. LABORATORY					
a. Clinical Microscopy					
Centrifuge	1	1	1	1	1
Microscope	1	1	1	2	2
PH comparator	0	1	1	1	1
Burbers	1	1	1	1	0
Urinometers	0	1	1	1	1
b. Microbiology					
Candle jar	0	0	0	1	1
Incubator	0	0	0	1	1
Oven	0	0	0	1	1
Refrigerator	0	0	1	1	1
Centrifuge	0	0	0	1	1
Hot plate	0	0	1	1	0
Trip balance (weighing scale 110 grams)	0	0	0	1	1
Microscope	0	0	1	1	1
Microbiology	0	0	0	1	1
c. Clinical Chemistry					
Titration	0	0	0	1	1
Spectrophotometer	0	0	2	2	2
Centrifuge	0	0	2	2	2
Blood PH meter	0	0	0	1	1
Flame photometer	0	0	0	1	1
Water incubator	0	0	1	1	1
Refrigerator	0	0	1	1	1
Analytical balance	0	0	1	1	1
Electrophoresis & Densitometer	0	0	0	1	1
Blood gas analyzer	0	0	0	1	1
d. Hematology					
Microscope	0	1	1	2	2
Spectrophotometer	0	0	0	1	1
Coagulation timer (Fibrometer)	0	0	1	1	1
Blood counter (differential)	0	1	1	1	2
Microhemocrit centrifuge	0	1	1	1	1
Pipette washer (for blood pipetter)	0	1	1	1	1
Staining rack 8	0	0	1	1	1
Hemoglobinometer	1	1	0	0	0
e. Serology					
Shaking machine (VDRL rotator)	0	0	1	1	1
Water bath (Zero) (37 deg & 56 deg.)	0	0	1	1	1
Microscope	0	0	1	1	1
f. Blood bank					
Serofuge	0	0	1	1	1
Plasma extractor	0	0	0	1	1
Blood bank centrifuge	0	0	0	1	1
RH typing view box	0	0	1	1	1
Microscope	0	0	0	1	1
Blood bank Refrigerator	0	0	1	1	1
Weighing scale	0	0	0	1	1
BP apparatus	0	0	0	1	1
Stethoscope	0	0	0	1	1
g. Histotechnic					
Water bath	0	0	1	1	1
Microtome	0	0	1	1	1
Cryostat	0	0	0	1	1
Paraffin oven	0	0	1	1	1
Hot plate	0	0	1	1	1
Binocular microscope	0	0	2	4	6

TECHNICAL EQUIPMENT & INSTRUMENTS	QUANTITY REQUIRED				
	PRIMARY	SECONDARY	TERTIARY PROV'L.	TERTIARY REG'L	TERTIARY MED. CTR.
h. Autopsy					
Autopsy set (brain knife, scalpels, dissecting scissors, intestinal scissors, hammer, chisel bone scissors, bone saw)	1	1	1	1	1
Autopsy table	0	0	1	1	1
Weighing scale	0	0	1	1	1
Tissue processor	0	0	0	1	1
Cadaver refrigerator	0	0	1	1	1
i. Miscellaneous Clinical Lavatory					
BMR	0	0	0	0	1
2. RADIOLOGY					
a. Diagnostic, Radiographic & Fluoroscopic Unit					
Portable x-ray	0	0	1	1	1
Diagnostic x-ray	0	1	1	2	3
Mass radiographic x-ray	0	0	1	1	1
Film dryers	0	1	2	2	3
Developing hangers	0	1	2	2	3
Developing tank	0	1	1	2	2
Rapid cassette changer	0	0	0	0	1
Megatroscope	0	1	4	8	8
Caliper	0	1	1	2	2
Ultrasound system	0	0	0	0	1
b. Therapeutic					
Cobalt machine	0	0	0	0	1
Deep x-ray unit	0	0	0	0	1
c. Nuclear medicine					
Sphygmomanometer	0	0	0	0	1
Stethoscope	0	0	0	0	1
Digital isotope calibrator	0	0	0	0	1
Paraffin oven	0	0	0	0	1
Spectrophotometer	0	0	0	0	1
Hytemos heavy duty furnace	0	0	0	0	1
Centrifuge	0	0	0	0	1
Uptake machine	0	0	0	0	1
Cent-O-gram	0	0	0	0	1
Hot plate stirrer	0	0	0	0	1
Serological water bath	0	0	0	0	1
Analytical balance	0	0	0	0	1
Scintillation scanner	0	0	0	0	1
PH meter	0	0	0	0	1
Peam forcep	0	0	0	0	1
Calculator	0	0	0	0	1
F. NON-TECHNICAL EQUIPMENT					
Ambulance	1	1	2	2	3

SOURCE: Department of Health (DOH)



EXHIBIT IX

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Directory of Member-Hospitals of the Philippine Hospital Association (PHA) By Region and Number of Hospital Beds, 1988

Region/ Name of Hospital	Address	Contact Person/Position	Telephone #	Category	No of Beds
METRO MANILA					
1. Makati Medical Center	2 Aurelio St., Makati, Metro Manila	Dr. Constantino P. Maanah Medical Director	815-4911	Tertiary - Private	495
2. Army General Hospital	Port Bonifacio, Makati, Metro Manila	Lt. Col. Diosdado G. Garcia Chief of Hospital	871-581 915-961	Tertiary - Gov't	597
3. St. Clare's Hospital & Nursery	1838 Dian St., Makati, Metro Manila	Dr. Ricardo C. Lirio Medical Director	331-6911 376-217	Secondary - Private	100
4. National Center for Mental Health	Maestro de Pedrero St., Mandaluyong, Metro Manila	Dr. Brigida S. Buenasera Chief of Hospital	771-531 700-571	Tertiary - Gov't	5200
5. The Polytechnic General Hospital	163 BOSA, Mandaluyong, Metro Manila	Dr. Conrado Potenciano Administrator	787-531 782-676	Tertiary - Private	154
6. The Medical City General Hospital	San Miguel Ave., Ortigas Center, Mandaluyong, Metro Manila	Dr. Augusto P. Sarazento Medical Director	591-661 596-21	Tertiary - Private	216
7. Rizal Medical Center	Shaw Blvd., Pasig, Metro Manila	Dr. Glicerio M. Bustazante Chief of Hospital	665-1240	Tertiary - Gov't	300
8. Cardinal Santos Medical Hospital	Wilson St., Greenhills, San Juan, Metro Manila	Dr. Ronaldo A. Anuncion	721-1341 721-3759	Tertiary - Private	1776
9. Veterans Medical Corporation	166 Pilar St., San Juan, Metro Manila	Dr. Jose P. Cuerdo Jr. S.E.V.P.	705-959 711-338	Tertiary - Private	100
10. St. Martin de Porres Charitable Hospital	70 A. Bonifacio St., San Juan, Metro Manila	Dr. Alabi P. Guzman Quirino Medical Director	772-683	Tertiary - Gov't	100
11. Our Lady of Fatima Hospital	128 Mc Arthur Highway, Valenzuela, Metro Manila	Dr. Vicente W. Santos Medical Director	351-501 351-5935	Tertiary - Private	250
12. U.P. PHN	Taft Ave., Ermita, Manila	Dr. Felipe A. Estrella Jr. Chief of Hospital	596-061	Tertiary - Gov't	987
13. Medical Center Manila	1152 Gen. Luna St., Ermita, Manila	Dr. Jose Belacion Hospital Director	591-461/593-921 590-021	Tertiary - Private	250
14. A. W. Ty Clinic	1401 San Marcelino St., Ermita, Manila	Dr. Anita W. Ty Medical Director	508-698	Secondary - Private	100
15. Manila Doctor's Hospital	667 B.B. Avenue, Ermita, Manila	Sis. Mary Philip Galeano Administrator	593-011	Tertiary - Private	137
16. Slagian Memorial Hospital	988 Gen. Solano St., San Miguel, Manila	Dr. Evelyn B. Slagian Medical Director	472-151 to 55	Tertiary - Private	200
17. Trinity General Hospital	New Panaderos St., Sta. Ana, Manila	Dr. Leticia B. Tolentino President & Administrator	597-061	Tertiary - Private	100
18. Dr. Jose Fabella Memorial Hospital	Lope de Vega St., Sta. Cruz, Manila	Dr. Ricardo B. Gonsales Medical Center Chief		Tertiary - Gov't	770
19. Dr. Jose Reyes Mem. Hosp. & Med. Ctr.	Rizal Ave., Sta. Cruz, Manila	Dr. Primo V. Brillantes Jr. Medical Center Chief	711-9491	Tertiary - Gov't	650
20. San Lazaro Hospital	Quirico St., Sta. Cruz, Manila	Dr. Virgilio Gonsales Chief of Hospital	711-69-79/48	Tertiary - Gov't	900

EXHIBIT IX
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Region/ Name of Hospital	Address	Contact Person/Position	Telephone #	Category	No of Beds
21. Chinese General Hosp. Medical Center	238 Blumentritt St., Sta. Cruz, Manila	Dr. Vicente Dy San Jr. Administrator	711-41-41	Tertiary - Private	550
22. St. Mary's General Hospital	1111 P. Heerlan St., Sta. Cruz, Manila	Dr. Antonio G. Clemente Medical Director	711-9793	Secondary - Private	100
23. Metropolitan Hospital	1357 Masangay Jr. St., Yondo, Manila	Mrs. Rosalind O. Diy Administrator	211-461 211-671	Tertiary - Private	300
24. Galang Medical Center	1240 Belangas St., Sta. Cruz, Manila	Dr. Cecilia T. Galang Medical Director	219-811 206-422	Tertiary - Private	100
25. Hospital of the Infant Jesus	1556 Laong Iana St., Sampaloc, Manila	Dr. Rolando S. Songco Medical Director	731-2771	Tertiary - Private	140
26. St. Jude's General Hospital	Dianalang St., Sampaloc, Manila	Dr. Razon Aliciana Jr. Medical Director	731-2761	Tertiary - Private	150
27. USF Hospital	Sopona Blvd., Sampaloc, Manila	Dr. Gregorio Moral Medical Director	731-3001	Tertiary - Private	400
28. St. Francis General Hospital & Mt.	2041 G. Tucson St., Sampaloc, Manila	Dr. Francisca Santiago Medical Director	218-991/218-760 218-928	Secondary - Private	100
29. Mary Chiles General Hospital	587 Gastanide St., Sampaloc, Manila	Dr. Rolando Florendo Medical Director	741-3861	Tertiary - Private	150
30. Perpetual Help Hospital Manila	1504 Laong Iana St., Sampaloc, Manila	Dr. Jose G. Tansyo Medical Director	731-8177 731-8199	Tertiary - Private	150
31. The Family Clinic & Hospital	1476 Maria Clara St., Sampaloc, Manila	Dr. Marciano G. Navarro Sr. Medical Director	731-2801	Tertiary - Private	100
32. PVO BMS Medical Foundation	M. Reyes St., Sampaloc, Manila	Dr. Lilia P. Luna Medical Director	741-3361 741-3465	Tertiary - Private	300
33. De Ocampo Memorial Medical Center	2921 Magtahan St., Sampaloc, Manila	Dr. Manuel V. Paulillo Medical Director	618-706	Tertiary - Private	100
34. Our Lady of Lourdes Hospital	46 P. Sanchez St., Sta. Mesa, Manila	Dr. Marcelino S. Reyes Medical Director	685-611	Tertiary - Private	200
35. Presidential Security Const. Hospital	Kalacang Park, Manila	Lt. Col. Jose R. Alameda Chief of Hospital	483-133	Tertiary - Gov't	100
36. Constabulary General Hospital	EDSA, Camp Crane, Quezon City	Col. Catalino L. Gozarra Chief of Hospital	712-0678	Tertiary - Gov't	150
37. Langford ng Labanan Child. Hospital	Quezon Ave., Diliman, Quezon City	Dr. Lillian V. Lee Medical Director	987-121 987-811	Tertiary - Gov't	200
38. Quirino Memorial Medical Center	Quirino dist., Project 4, Quezon City	Dr. Roson S. Vergara Chief of Hospital	745-821	Tertiary - Gov't	200
39. Hospital ng Bagong Lipunan	East Ave., Quezon City	Dr. Adriano de la Paz Chief of Hospital	985-900	Tertiary - Gov't	350
40. National Orthopedic Hospital	M. Clara Corner Banawe Sta., Quezon City	Dr. Rafael S. Recto Jr. Medical Director	711-4276	Tertiary - Gov't	100

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Region/ Name of Hospital	Address	Contact Person/Position	Telephone #	Category	No of Beds
41. National Childrens' Hospital	266 E. Rodriguez Blvd., Quezon City	Dr. Ra. Isabelita Vital - Gason Medical Center Chief	985-742	Tertiary - Gov't	250
42. Quezon City General Hospital	Seaspray Road, Quezon City	Dr. Edgardo W. Salud Chief of Hospital	986-577 971-728	Tertiary - Gov't	250
43. Quezon City Medical Center	960 Aurora Blvd., Quezon City	Dr. Rosalendo C. Marcelino Medical Director	921-3451	Tertiary - Private	100
44. Bago Bantay General Hospital	75 Robinson St., Bago Bantay, Quezon City	Dr. Juanito P. Sison Medical Director	985-643	Secondary - Private	100
45. St. Luke's Medical Center	279 E. Rodriguez Jr. Blvd., Cathedral Heights, Quezon City P.O. Box 180 Manila	Dr. Arsenio C. Gaton Hospital Director	780-971 722-8981	Tertiary - Private	370
46. Philippine Heart Center for Asia	East Avenue, Biliunan, Quezon City	Dr. Eusebio Juncos - Cabral Chief of Hospital	988-221 977-651	Tertiary - Gov't	245
47. URM Memorial Medical Center	Aurora Blvd., Quezon City	Dr. Jorge W. Pajalte Medical Director	612-771	Tertiary - Private	347
48. Capitol Medical Center	Scout Hagbans St., Corner Pasey Ave., Quezon City	Dr. Thelma W. Clemente President	991-571/985-877	Tertiary - Private	177
49. United Doctor's Medical Center	8 W. Basires St., Quezon City	Dr. Carlos P. Crisostomo Administrator	712-3640 712-3655	Tertiary - Private	100
50. Quezon Institute	E. Rodriguez Blvd., Quezon City	Dr. Pedro Lopez de Leon Executive Director	613-666/613-672	Tertiary - Private	76
51. De Los Santos Medical Center	281 E. Rodriguez Blvd., Quezon City	Dr. Eileen V. de los Santos Medical Director	787-011	Tertiary - Gov't	150
52. Veterans Memorial Medical Center	North Ave., Quezon City	Dr. Sergio Brillantes Chief of Hospital	986-428	Tertiary - Gov't	760
53. AFP Medical Center	V. Luna Road, Quezon City	Gen. Virgilio L. Masilit Commanding General	921-1801 921-1806	Tertiary - Gov't	1700
54. National Kidney Institute	Quezon Ave., Extension, Quezon City	Dr. Filoteo Alano Chief	998-711	Tertiary - Gov't	50
55. Lung Center of the Phils.	Quezon Ave. Ext., Biliunan, Quezon City	Dr. Calisto A. Zaldivar Chief of Hospital	969-381/992-426	Tertiary - Gov't	303
56. Martinez Memorial Hospital	188 Robinson St., Calocan City	Dr. Ferdinand A. Martinez Medical Director	236-821 236-574	Tertiary - Private	170
57. HCU-P Tanchico Medical Foundation Hosp.	EDSA, Calocan City	Mrs. Luninguing Y. Estanislao Administrator	362-1046	Tertiary - Gov't	221
58. Philippine Air Force General Hospital	Richardson Air Base, Pasay City	M. Col. Roberto San Agustin Chief of Hospital	833-4551	Tertiary - Gov't	160
59. Hospital de San Juan de Dios	2772 Roxas Blvd., Pasay City	Dr. Ricardo Roque Medical Director	831-9131	Tertiary - Private	206
60. Manila Sanitarium & Hospital	1875 Bonarda St., Pasay City	Dr. Dion E. Capule Administrator	576-081 587-360	Tertiary - Private	159

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Region/ Name of Hospital	Address	Contact Person/Position	Telephone	Category	No of Beds
REGION I					
1. Abra Integrated Provincial Health Office	Bagué, Abra	R. Juvencio Ordona Chief of Hospital	-	Secondary - Gov't	100
2. Efraim Montenegro Memorial Medical Ctr.	Baguio City, Benguet	Dr. Jesus K. del Prado Chief of Hospital	-	Tertiary - Gov't	350
3. Notre Dame de Lourdes Hospital	Gen. Luna Road, Baguio City, Benguet	Sis. Marie Theresa Tusay Administrator	-	Tertiary - Private	100
4. SLS Hospital of the Sacred Heart	Assumption Road, Baguio City, Benguet	Dr. Sabino Macallano Medical Director	-	Tertiary - Private	103
5. Ilocos Norte Integrated Prov'l. Health Office	P. Gomez St., Laoag City, Ilocos Norte	Dr. Nestor Barbero Chief of Hospital	-	Tertiary - Gov't	100
6. Garospe General Hospital	Badoc, Ilocos Norte	Dr. Abraham P. Garospe Medical Director	-	Secondary - Private	130
7. Batang General Hospital	Batang, Ilocos Norte	Dr. Domingo G. Saneante Chief of Hospital	-	Tertiary - Gov't	200
8. Gabriela Silang Integrated Prov'l. Health Office	Vigan, Ilocos Sur	Dr. Benjamin Canabuy Prov'l. Health Officer	-	Tertiary - Gov't	100
9. Ilocos Regional Hospital	San Fernando, La Union	Dr. Juanito A. Rubio Officer-in-Charge	-	Tertiary - Gov't	175
10. IPHO (Donna Gregoria Memorial Hospital)	Agoo, La Union	Dr. Ceferino Gonzales Chief of Hospital	-	Tertiary - Gov't	100
11. Corra Hospital Medical Center	Carlatan, San Fernando	Dr. Juan V. Enayn Medical Director	-	Tertiary - Private	136
12. Bethany Hospital	San Fernando, La Union	Dr. Antonio V. Oracion Medical Director	-	Tertiary - Private	100
13. Integrated Provincial Health Office	Bontoc, Mt. Province	Dr. Apolinario Pilit Provincial Health Officer	-	Secondary - Gov't	100
14. IPHO - Gov. Yofillo Simon Mem. Hospital	Arellano St., Dagupan City, Pangasinan	Dr. Jose S. Reyes Chief of Hospital	-	Tertiary - Gov't	201
15. Dagupan Polyclinic & Medical Center	A.P. Fernandez St., Dagupan City, Pangasinan	Dr. Benigno C. Panayon Medical Director	-	Secondary - Private	100
16. Luna Medical Center Specialists Group	Tapanac, Dagupan City, Pangasinan	Dr. Carlito V. Arenas Medical Director	-	Secondary - Private	110
17. Nazareth General Hospital	203 Perez St., Dagupan City, Pangasinan	Dr. Eduardo G. Escande Medical Director	-	Secondary - Private	100
18. Pangasinan Medical Center, Inc.	Rubio St., Dagupan City, Pangasinan	Dr. Francisco T. de Guzman Medical Director	-	Tertiary - Private	100
19. Eastern Pangasinan District Hospital	Tayog, Pangasinan	Dr. Godelia M. Jose Chief of Hospital	-	Tertiary - Gov't	150
20. San Carlos General Hospital	San Carlos City, Pangasinan	Dr. Gil P. del Rosario Chief of Hospital	-	Tertiary - Gov't	150
21. Virgen Wilagosa Medical Clinic	San Carlos City, Pangasinan	Dr. Martin P. Pascua President/Owner	-	Tertiary - Private	120

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Region/ Name of Hospital	Address	Contact Person/Position	Telephone #	Category	No of Beds
REGION II					
1. Isabela Integrated Prov'l Health Office	Iligan, Isabela	Dr. Ruristo Taguba	-	Tertiary - Gov't	100
2. Cagayan Regional Hospital	Tuguegarao, Cagayan	Dr. Placido Arzonillo Chief of Hospital	-	Tertiary - Gov't	200
3. Regional Mental Hospital	Carig, Tuguegarao, Cagayan	Dr. Crispian C. Pesequito Chief of Hospital	-	Primary - Gov't	200
4. Cagayan Valley Sanitarium & Hosp. Ctr.	Mabini, Santiago, Isabela	Dr. Aurelio B. Garcia Jr. Medical Director	-	Tertiary - Private	100
5. Integrated Provincial Health Office	Boluan, Tabuk, Balanga-Apaya	Dr. Emilio B. Canayo Chief of Hospital	-	Secondary - Gov't	100
6. Integrated Provincial Health Office	Bayambang, Nueva Vizcaya	Dr. Juanito E. Mariano Prov'l. Health Officer	-	Tertiary - Gov't	200
7. Integrated Provincial Health Office	San Marcos, Cabarragan, Quirino	Dr. Celestino Q. Aguilado Chief of Hospital	-	Tertiary - Gov't	100
REGION III					
1. R. E. General Hospital	Isang Barile, Cabanatuan City, Nueva Ecija	Dr. Rolando E. Yacheco Chief of Hospital	-	Tertiary - Gov't	100
2. Bulacan IPHC	Bulacan, Bulacan	Dr. Rolando S. Bauton Prov'l. Health Officer	-	Tertiary - Gov't	200
3. Bulacan IPHO	Bulacan, Bulacan	Dr. Rolando J. del Barrio Jr. Asst. Prov'l. Health Officer	-	Tertiary - Gov't	200
4. Dr. Paulino Garcia Memorial Research and Medical Center	Mabini St., Cabanatuan City, Nueva Ecija	Dr. Benjamin V. Morales Chief of Hospital	-	Tertiary - Gov't	300
5. R. E. Good Samaritan General Hospital	Burgos St., Cabanatuan City, Nueva Ecija	Dr. Leonides Soriano Medical Director	-	Tertiary - Private	100
6. Army Station Hospital	Port Maguway, Palayan City, Nueva Ecija	Col. Benjamin V. Canoyanes Chief of Hospital	-	Primary - Gov't	100
7. Central Luzon Regional Hospital	San Fernando, Pampanga	Dr. Rogelio Reyes Chief of Hospital	-	Tertiary - Gov't	250
8. Base Air Base Station Hospital	Floridablanca, Pampanga	Lt. Col. Wilfredo D. Decaney Commanding Officer	-	Secondary - Gov't	100
9. Pampanga Medical Specialists Center	Angeles City, Pampanga	Dr. Jesus B. Yarnac Medical Director	-	Tertiary - Private	100
10. Tarlac Integrated Prov'l. Hosp. Office	Tarlac, Tarlac	Dr. Antonio Lopez Chief of Hospital	-	Tertiary - Gov't	200
11. Camp Aquino Station Hospital	Tarlac, Tarlac	Lt. Col. Tomas P. Pacis Commanding Officer	-	Primary - Gov't	100
12. Central Luzon Doctor's Hospital	Tarlac, Tarlac	Dr. Constantino B. Quirino Medical Director	-	Tertiary - Private	100
13. Olongapo City General Hospital	Olongapo City, Zambales	Dr. Concordia A. Ligud Chief of Hospital	-	Tertiary - Gov't	150
14. Integrated Provincial Health Office	Iba, Zambales	Dr. Bonifacio C. Pansalan Prov'l. Health Officer	-	Tertiary - Gov't	150

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Region/ Name of Hospital	Address	Contact Person/Position	Telephone #	Category	No of Beds
REGION IV					
1. Batangas Regional Hospital	Emiliang Ullala, Batangas City	Dr. Julio L. Mayuga Chief of Hospital	-	Tertiary - Gov't	200
2. Golden Gate General Hospital	Prieto St., Batangas City	Dr. Rodolfo B. Montalbo Medical Director	-	Tertiary - Private	100
3. Saint Patrick's Hospital	Lopez Jaena St., Batangas City	Dr. Abelardo B. Perez Medical Director	-	Tertiary - Private	100
4. Lycuan Hospital	Batangas City	Dr. Vicente A. Pastor Medical Director	-	Tertiary - Gov't	100
5. Fernando Air Base Hospital	100th PAB, Lipa City, Batangas	Lt. Col. David V. Gil Chief of Hospital	-	Tertiary - Gov't	100
6. Naval Station Hospital	Port San Felipe, Cavite City	Col. Juanito Deloy Chief of Hospital	-	Tertiary - Gov't	100
7. Integrated Prov'l. Health Office	Trece Martires City, Cavite	Dr. Heilton Quiroz Jr. Chief of Hospital	-	Tertiary - Gov't	150
8. Dr. J. P. Rizal National Hospital & Medical Research Center	Bagong Nayon, Bacarrinas, Cavite	Sis. La Cruz de Jesus Administrator	-	Tertiary - Private	100
9. De La Salle University Medical Center	Pasong Lawin, Bacarrinas, Cavite	Dr. Lourden P. Campos Medical Director	-	Tertiary - Private	100
10. Laguna Integrated Prov'l. Health Office	Sta. Cruz, Laguna	Dr. Francisco P. Tabla Prov'l. Health Officer	-	Tertiary - Gov't	150
11. Bisan, Doctor's Hospital	Bo. Platero, Bisan, Laguna	Dr. Nino Almeda Oliveras Medical Director	-	Tertiary - Private	100
12. Perpetual Help Medical Center - Laguna	Sta. Nino, Bisan, Laguna	Dr. Jose G. Tanayo President	-	Tertiary - Private	100
13. San Pablo City District Hospital	San Pablo City, Laguna	Dr. Progenia G. Ebanan Chief of Hospital	-	Tertiary - Gov't	100
14. Mariadque Integrated Prov'l. Health Office	Santol, Bac, Mariadque	Dr. Efren J. Labay Officer-in-Charge	-	Tertiary - Gov't	100
15. Mindoro Occidental Provincial Health Office	Mamburao, Mindoro Occidental	Dr. Antonio D. Rehong Prov'l. Health Officer	-	Tertiary - Gov't	100
16. Oriental Mindoro Integrated	Calapan, Oriental Mindoro	Dr. Ernesto B. Valencia Chief of Hospital	-	Tertiary - Gov't	100
17. Calion Sanitarium	Calion, Palawan	Dr. Paul Pangelista Chief of Hospital	-	Tertiary - Gov't	600
18. Quezon Integrated Prov'l. Health Office	Lucena City, Quezon	Dr. Manuel Salazar Officer-in-Charge	-	Tertiary - Gov't	200
19. Medical Center, Lucena	Lucena City, Quezon	Dr. Rectorio B. Calayan Jr. Medical Director	-	Tertiary - Private	150
20. Tayabas Community Hospital	Tayabas, Quezon	Dr. Aurelio A. Obispo Medical Director	-	Tertiary - Private	135
21. Romblon Provincial Hospital	Odiongan, Romblon	Dr. Lilia Arbolada Officer-in-Charge	-	Tertiary - Gov't	100
22. Antipolo Immaculate Conception Medical Center	Circumferential Road, Antipolo, Rizal	Dr. Godofredo G. Castaño Medical Director	-	Tertiary - Private	150
23. Rizal Integrated Prov'l. Health Office	Young Claudio St., Noronog, Rizal	Dr. Bayani Estacio Chief of Hospital	-	Secondary - Gov't	100

Region/ Name of Hospital	Address	Contact Person/Position	Telephone	Category	No of Beds
REGION V					
1. Albay Integrated Prov'l. Health Office	Legaspi City, Albay	Dr. Jose B. Fernando Chief of Hospital	-	Tertiary - Gov't	150
2. Ago General Hospital	Rinal St., Legaspi City	Dr. Narciso J. Ago Medical Director	-	Tertiary - Private	100
3. Inmaculate Conception Hospital	Rinal St., Naraga, Albay	Dr. Alberto B. Baylan Medical Director	-	Tertiary - Private	150
4. Causines Norte Integrated Prov'l. Health Office	Burt, Causines Norte	Dr. Nestor F. Santiago Officer-in-Charge	-	Tertiary - Gov't	100
5. Bicol Region Hospital	C. Paguasa, Baga City, Causines Sur	Dr. Felipe S. Del Rosario Officer-in-Charge	-	Tertiary - Gov't	250
6. Bicol Sanitarium	San Pedro, Causines, Causines Sur	Dr. Josefin P. Guevarra Officer-in-Charge	-	Secondary - Gov't	200
7. Sorsogon Prov'l. Health Office	Sorsogon, Sorsogon	Dr. Arturo B. Perdigon Chief of Hospital	-	Tertiary - Gov't	100
8. Integrated Prov'l. Health Office	Virac, Catanduanes	Dr. Casan S. Nagel Chief of Hospital	-	Tertiary - Gov't	200
9. Masbate Provincial Hospital	Masbate, Masbate	Dr. Florinda P. Alvero Chief of Hospital	-	Tertiary - Gov't	100
REGION VI					
1. Dr. Rafael S. Yumbayan Mem'l. Hospital	Malibit St., Talibao, Abilan	Dr. Ricardo Bernido Prov'l. Health Officer	-	Tertiary - Gov't	100
2. Saint Gabriel Hospital	G. Pastreano St., Talibao, Abilan	Dr. Euseo R. Legaspi President	-	Tertiary - Private	100
3. Angel Salazar Mem'l. General Hospital	San Jose, Antique	Dr. Jorio N. Blas Jr. Provincial Health Officer	-	Tertiary - Private	100
4. Capiz (Mansueto) Hospital	Banas Ave., Banas City, Capiz	Dr. Dolores B. Abadiano Administrator	-	Tertiary - Gov't	100
5. St. Anthony Hospital	San Roque Ext., Banas City, Capiz	Sis. Lourdes Subidos Administrator	-	Tertiary - Private	100
6. Western Visayas Medical Center	Bandarise, Iloilo City	Dr. Arturo G. Arduana Chief of Hospital	-	Tertiary - Gov't	300
7. West Visayas State Univ. Hosp.	La Paz, Iloilo City	Dr. Arvelino B. Paderna Administrative Asst.	-	Tertiary - Private	150
8. Iloilo Doctor's Hospital	West Ave., Solo, Iloilo City	Dr. Roland Padilla Medical Director	-	Tertiary - Private	300
9. St. Paul Hospital of Iloilo	General Luna St., Iloilo City	Sis. Marie Noel, SPC Administrator	-	Tertiary - Private	150
10. Iloilo Mission Hospital	Jawa, Iloilo City	Dr. Dorothy B. Polido Medical Director	-	Tertiary - Private	150
11. Iloilo Integrated Prov'l. Health Office	Petaton, Iloilo	Dr. Cleto Cardena Officer-in-Charge	-	Tertiary - Gov't	100
12. Corason Lucan Nativelano Mem'l. Hosp.	Lucan St., Bacolod City, Negros Occidental	Dr. Theodore P. Bates Chief of Hospital	-	Tertiary - Gov't	300
13. Bacolod Sanitarium & Hospital	Tuculing, Bacolod City, Negros Occidental	Dr. Francisco T. Gualal President	-	Tertiary - Private	100

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Region/ Name of Hospital	Address	Contact Person/Position	Telephone	Category	No. of Beds
16. The Doctor's Hospital Inc.	Agusan Drive, Recolet City, Negros Occidental	Dr. Rodolfo L. Jacosa Medical Director	-	Tertiary - Private	150
15. Dr. Pablo O. Torre Sr., Memorial Hosp.	North Drive, Recolet City	Mrs. Paula T. Benares Administrator	-	Tertiary - Private	200
16. Our Lady of Mercy Hospital	Madalagan, Recolet City, Negros Occidental	Dr. Francisco M. Peria Medical Director	-	Tertiary - Private	100
17. St. Anne's Medical Center	Bontensa, Cadiz City, Negros Occidental	Dr. Jose P. Fernandez Administrator	-	Tertiary - Private	100
REGION VII					
1. Gov. Celestino Gallardo Mem'l. Hosp.	Higuel Parras St., Tugbilaran City, Iloilo	Dr. Leonila B. Velasco Chief of Hospital	-	Tertiary - Gov't	220
2. Lema Lio Memorial Hospital	Valencia, Iloilo	Dr. Concepcion O. Taa Medical Director	-	Secondary - Private	120
3. Cebu City Medical Center	Bliss Ave., Cebu City	Dr. Francisco B. Big Jr. Chief of Hospital	-	Tertiary - Gov't	200
4. Metro Cebu Casualty Hospital	Osmun Blvd., Cebu City	Dr. Felix Vicuna Jr. Medical Director	-	Tertiary - Private	150
5. Cebu Doctor's Hospital Inc.	Osmun Blvd., Cebu City	Dr. Policarpo V. Larranabal Jr. Medical Director	-	Tertiary - Private	225
6. Southern Islands Medical Center	Cebu City	Dr. Quisling Y. Borlito Chief of Hospital	-	Tertiary - Gov't	330
7. Cebu (Velaz) General Hospital	P. Bason St., Cebu City	Dr. Josefin Pablito Medical Director	-	Tertiary - Private	200
8. Chang Nao Hospital	Cebu City	Dr. Aljo A. Tia Medical Director	-	Tertiary - Private	100
9. Perpetual Succor Hospital	Gerardo Ave., Cebu City	Dr. Lela Rivera Administrator	-	Tertiary - Private	100
10. Sacred Health Hospital	Orgullo St., Cebu City	Dr. Rebecca Oscar Medical Director	-	Tertiary - Private	200
11. Vicente Gallan Memorial Hospital	Sanidad, Mandao City, Cebu	Dr. Juan Hernandez Administrator	-	Tertiary - Private	100
12. Negros Oriental Integrated Provincial Health Office	Plapl, Panagete City, Negros Oriental	Dr. Michael P. Badogic Provincial Health Officer	-	Tertiary - Gov't	250
13. Silliman University Medical Center	Laguna, Panagete City, Negros Occidental	Dr. Wicamar O. Rosario Administrator/Medical Director	-	Tertiary - Private	100
14. Siquijor Provincial Hospital	Siquijor, Siquijor	Dr. Basilio Espelata Officer-in-Charge	-	Primary - Government	100
REGION VIII					
1. Eastern Samar Integrated Provincial Health Office	Borongan, Eastern Samar	Dr. Arturo A. Ambegco Chief of Hospital	-	Tertiary - Gov't	100
2. Northern Samar Integrated Provincial Health Office	Cataman, Northern Samar	Dr. John E. Eon Chief of Hospital	-	Tertiary - Gov't	120
3. Samar Integrated Prov'l. Health Office	Catbalogan, Western Samar	Dr. Juanito dela Cruz Officer-in-Charge	-	Tertiary - Gov't	100
4. Tacloban City Medical Center	Tacloban City, Northern Leyte	Dr. Arcadio L. Galapon Officer-in-Charge	-	Tertiary - Gov't	250

Region/Name of Hospital	Address	Contact Person/Position	Telephone #	Category	No. of Beds
5. Anthony Hospital	Real St., Tacloban City, Northern Leyte	Dr. Julio E. Delosico Medical Director	-	Tertiary - Private	125
6. Divine Word Hospital	Iselda Ave., Tacloban City Northern Samar	Sis. Iselda O. Mallil Administrator	-	Tertiary - Private	100
7. Carigara District Hospital	Carigara, Northern Leyte	Dr. Catalino T. Sigaco Chief of Hospital III	-	Secondary - Gov't	100
8. Western Leyte Provincial Hospital	Baybay, Northern Leyte	Dr. Linda Theresa T. Astorga Chief of Hospital III	-	Tertiary - Gov't	100
9. Ormoc General Hospital	Cogan, Cagbado, Ormoc City	Dr. Conrado B. Nostelano Chief of Hospital	-	Tertiary - Gov't	125
10. Southern Leyte Integrated Provincial Health Office	Masina, Southern Leyte	Dr. Buenaventura Jostal Chief of Hospital	-	Tertiary - Gov't	100 / 120
REGION IX					
1. Solo Integrated Provincial Health Office	Jolo, Sulu	Dr. Melua L. Asia Provincial Health Officer	-	Tertiary - Gov't	100
2. Solo Sanitarium	Jolo, Sulu	Dr. Emerlinda A. Pollaino Chief of Hospital	-	Primary - Gov't	120
3. Southern Hospital Jolo HPP	Camp Astorlar, Jolo, Sulu	Lt. Col. Augusto S. Sajon MC Commanding Officer	-	Secondary - Private	100
4. Zamboanga del Norte Integrated Provincial Health Office	Dipolog City, Zamboanga del Norte	Dr. Carmencita P. Ison Provincial Health Officer	-	Tertiary - Gov't	100
5. Zamboanga Regional Hospital	Bongclista St., Zamboanga del Sur	Dr. Leopoldo C. Nuche Chief of Hospital	-	Tertiary - Gov't	200
6. Mindanao Central Sanitarium	Zamboanga City, Zamboanga del Sur	Dr. Gerardo M. Aquino Chief of Hospital	-	Tertiary - Gov't	450
7. Camp Navarro General Hospital	Camp Navarro, Catarlan Zamboanga City, Zamboanga del Sur	Col. Benedicto M. Nino Commanding Officer	-	Secondary - Gov't	200
8. Brent Hospital	BT Lin Blvd., Zamboanga City Zamboanga del Sur	Dr. Araceli B. Aranes Medical Director	-	Tertiary - Private	100
9. Aerona District Health Services	M. Raza St., Poblacion Aerona, Zamboanga del Sur	Dr. Susan I. Yapedoc Chief of Hospital III	-	Secondary - Gov't	150
10. Zamboanga del Sur Integrated Prov'l. Health Office	Pagadian City, Zamboanga del Sur	Dr. Ricardo B. Ocholayena Provincial Health Officer	-	Tertiary - Gov't	150 / 160
REGION X					
1. City General Hospital & Medical Center	Butuan City, Agusan del Norte	Dr. Cleto P. Bucarro Chief of Hospital	-	Tertiary - Gov't	150
2. Butuan Integrated Provincial Health Office	Libertad, Butuan City Agusan del Norte	Dr. Charito Alfonso - Amien Provincial Health Officer	-	Tertiary - Gov't	100
3. Butuan Doctor's Hospital	Butuan City, Agusan del Norte	Dr. Manuel O. Balacio Medical Director	-	Tertiary - Private	100
4. Manuel J. Santos Hospital	Montilla Blvd., Butuan City, Agusan del Norte	Dr. Abraham A. Villarreal Hospital Director	-	Tertiary - Private	100
5. Agusan del Sur Integrated Provincial Health Office	Pacific St., Prosperidad Agusan del Sur	Dr. Paz Abrigano Bosa Officer-in-Charge	-	Tertiary - Gov't	100
6. Butuan Integrated Provincial Health Office	Malabalar, Butuan	Dr. Angel Macapagal Officer-in-Charge	-	Tertiary - Gov't	100
7. Mayor Villarion E. Ralino, Sr. General Hospital	Mindog, Butuan City, Misamis Occidental	Dr. Jose C. Villanueva, Jr. Chief of Hospital	-	Tertiary - Gov't	125

EXHIBIT IX
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Region/ Name of Hospital	Address	Contact Person/Position	Telephone	Category	No of Beds
8. Medina General Hospital	Quasis City, Misamis Occidental	Dr. Rico W. Medina Medical Director	-	Tertiary - Private	100
9. Evangelista Station Hospital	Apoel Subd., Bulua Cagayan de Oro City, Misamis Occidental	Dr. Enrique Golliao Commanding Officer	-	Secondary - Gov't	100
10. J. Borja Memorial City Hospital	Cagayan de Oro City, Misamis Oriental	Dr. Leo B. Generalao Chief of Hospital	-	Secondary - Gov't	100
11. Cagayan de Medical Center	Traso Brother St., Cagayan de Oro City, Misamis Oriental	Dr. Francisco L. Oh Medical Director	-	Tertiary - Private	100
12. Northern Mindanao Regional Training Hospital	Recto Ave., Cagayan de Oro City, Misamis Oriental	Dr. Gabriel C. Malbas Chief of Hospital	-	Tertiary - Gov't	200
13. Surigao del Norte Integrated Provincial Health Office	Surigao City, Surigao del Norte	Dr. Pedro S. Pastor Provincial Health Officer	-	Tertiary - Gov't	150
REGION II					
1. Davao del Norte Integrated Provincial Health Office	Apolon, Tagu, Davao del Norte	Dr. Basilio Buego Chief of Hospital	-	Tertiary - Gov't	100
2. Christ the King Hospital	Tagu, Davao del Norte	Sis. Lydia S. Pancho Administrator	-	Tertiary - Private	100
3. Davao Regional Medical & Training Hosp.	Bajada, J. P. Laurel Ave., Davao City, Davao del Sur	Dr. Anaciano A. Parana Chief of Hospital	-	Tertiary - Gov't	350
4. Davao Doctor's Hospital	118 E. Quirino Ave., Davao City, Davao del Sur	Dr. Jose L. Gantique Jr. Medical Director	-	Tertiary - Private	150
5. San Pedro Hospital of Davao City	Gerrero St., Davao City, Davao del Sur	Sister Anne Marie Salas Administrator	-	Tertiary - Private	250
6. Davao del Sur Integrated Provincial Health Office	Lagu-lagu St., Digos, Davao del Sur	Dr. Prospero Padilla Officer-in-Charge	-	Tertiary - Gov't	100
7. Davao Oriental Provincial Hospital	Mati, Davao Oriental	Dr. Gil Montilla Provincial Health Officer	-	Tertiary - Gov't	100
8. Mati Baptist Hospital	Mati, Davao Oriental	Dr. Severo B. Arnao Medical Director	-	Tertiary - Private	100
9. South Cotabato Integrated Provincial Health Office	Barbel, Coronadal, South Cotabato	Dr. Euterio Aves Provincial Health Officer	-	Tertiary - Gov't	100
REGION III					
1. Lanas del Norte Provincial Hospital	Baray, Lanas del Norte	Dr. Arnelino C. Grogge Provincial Health Officer	-	Tertiary - Gov't	100
2. Bautista Clinic & Hospital	Tacurong, Sultan Kudarat	Dr. Perfecto C. Bautista Medical Director	-	Tertiary - Private	100
3. Sultan Kudarat Doctor's Hospital	Tuburan, Sultan Kudarat	Dr. Soledad T. Eugenio Medical Director	-	Tertiary - Private	125
4. Cotabato Regional Hospital	Cotabato City, Maguindanao	Dr. Gazi Maulana Chief of Hospital	-	Tertiary - Gov't	900
5. Notre Dame Hospital of School of Midwives	Bosary Heights, Cotabato City, Maguindanao	Sis. Maria Inocencio Aquino, O.P. Administrator	-	Tertiary - Private	150

Current Size of the Philippine Market for Medical Equipment and Supplies By Commodity and By Main Product Divisions and Groups
In Value Terms, In Thousand US Dollars

D I V I S I O N / G R O U P / C O M M O D I T Y		LOCAL		LOCAL	
		IMPORTS	PRODUCTION	EXPORTS	CONSUMPTION
A. EQUIPMENT & INSTRUMENTS		12,716.6	134.2	59.0	12,791.8
1. Medical, surgical and veterinary instruments (including ophthalmic instruments) and appliances (except electro-medical apparatus); parts thereof		8,789.2	83.3	52.1	8,820.4
o Optical examining and diagnostic instruments, apparatus and appliances (ophthalmoscope, retinoscope, etc.), nes		6.2	0.0	0.0	6.2
o Applicators and tongue depressors		27.7	52.1	52.1	27.7
o Hypodermic needles		41.1	0.0	0.0	41.1
o Brushes of a kind specialized for medical, surgical or veterinary purposes		0.0	0.0	0.0	0.0
o Other medical, surgical and veterinary instruments and appliances, nes		8,540.7	31.2	0.0	8,591.9
o Parts of items falling under this group		133.5	0.0	0.0	133.5
2. Dental instruments and appliances		609.5	0.0	0.0	609.5
o Brushes specially designed for use with a dental drill engine		13.6	0.0	0.0	13.6
o Other dental instruments and appliances		595.9	0.0	0.0	595.9
3. Machine-therapy appliances; massage apparatus; artificial respiration, ozone/oxygen/aerosol therapy or similar apparatus; breathing appliances		425.3	6.9	6.9	425.3
o Therapeutic apparatus		81.7	0.0	0.0	81.7
o Massage apparatus		58.4	6.9	6.9	59.4
o Breathing appliances		253.1	0.0	0.0	253.1
o Parts and accessories of instruments and appliances falling under this group		40.1	0.0	0.0	40.1
4. Electric apparatus for medical purposes and radiological apparatus		2,641.7	44.0	0.0	2,685.7
o Electrocardiographs		31.4	0.0	0.0	31.4
o Artificial incubators for babies		23.8	40.6	0.0	64.4
o X-ray apparatus and apparatus based on the use of radiations from radioactive substances		2,273.5	0.0	0.0	2,273.5
o X-ray dark room construction materials		0.0	0.0	0.0	0.0
o Other electric apparatus for medical purposes and radiological apparatus, nes		313.0	3.4	0.0	316.4
5. Clinical thermometers		250.9	0.0	0.0	250.9
6. Mobile radiological units		0.0	0.0	0.0	0.0

B. SUPPLIES

1. Madding/gauze/bandages and similar articles, impregnated or coated with pharmaceutical substance or put up in retail packing for medical or surgical purposes, nes

- Madding (excluding absorbent cotton, etc., bleached or dyed or otherwise finished), gauze, bandages & similar articles, medicated
- Gauze and bandages, sterilized or put up in retail packing for medical or surgical purposes, unmedicated
- Adhesive plasters, unmedicated, in retail packing for medical or surgical purposes
- Sterile absorbent cotton
- Plaster-coated fracture bandages
- Cotton specialties, sterile or non-sterile (including cotton-tipped applicators, cotton pellets, non-absorbent cotton, etc.)
- Poultices

2. Other pharmaceutical goods

- Sterile surgical catgut and similar suture materials
- Sterile lambaria and lambaria tents
- Sterile absorbable surgical hemostatics
- Specifying preparations used in x-ray examinations and diagnostic reagents designed to be administered to the patient
- Blood grouping reagents
- Dental cement and other dental fillings
- First-aid boxes and kits

3. Laboratory, hygienic and pharmaceutical glassware, whether or not graduated or calibrated; glass ampoules

- Ampoules
- Flasks
- Other laboratory, medical, surgical, dental and hygienic glassware, nes

4. Hygienic and pharmaceutical articles (including tests), of unhardened vulcanized rubber, with or without fittings of unhardened rubber

- Rubber bags for ice, hot water and oxygen
- Rubber droppers
- Bottle nipples, of unhardened vulcanized rubber
- Rubber syringes and bulbs thereof
- Other hygienic, medical or surgical articles of unhardened vulcanized rubber, nes

5. Orthopedic appliances, surgical belts, trusses and the like; splints and other fracture appliances; artificial limbs, eyes, teeth and other artificial parts of the body; appliances which are worn or carried in the body to compensate for a defect or disability (except hearing aids)

- Artificial teeth of all materials
- Artificial dentures and bridges of all materials
- Orthopedic shoes wholly or mainly of leather or composition leather
- Other orthopedic appliances, artificial parts of the body, fracture appliances, pacemakers and other appliances to compensate for a defect or disability, nes

6. Hygienic medical and surgical articles, whether enameled or not (bedpans, urinals, irrigators, instrument & catheter trays, pots & solution basin, infant baths, etc.)

- Hygienic, medical and surgical articles, of iron or steel
- Hygienic, medical and surgical articles, of copper
- Hygienic, medical and surgical articles, of aluminum

7. Hearing aids

	IMPORTS	LOCAL PRODUCTION	EXPORTS	LOCAL CONSUMPTION
1. Madding/gauze/bandages and similar articles, impregnated or coated with pharmaceutical substance or put up in retail packing for medical or surgical purposes, nes	7,709.3	7,106.1	277.0	14,610.4
• Madding (excluding absorbent cotton, etc., bleached or dyed or otherwise finished), gauze, bandages & similar articles, medicated	3,539.1	3,210.8	3.4	6,754.5
• Gauze and bandages, sterilized or put up in retail packing for medical or surgical purposes, unmedicated	909.3	1.4	1.4	909.3
• Adhesive plasters, unmedicated, in retail packing for medical or surgical purposes	1,376.7	0.0	0.0	1,376.7
• Sterile absorbent cotton	491.8	488.3	0.0	980.1
• Plaster-coated fracture bandages	35.3	2,727.1	0.0	2,762.4
• Cotton specialties, sterile or non-sterile (including cotton-tipped applicators, cotton pellets, non-absorbent cotton, etc.)	644.9	0.0	0.0	644.9
• Poultices	0.0	0.0	0.0	0.0
2. Other pharmaceutical goods	1,874.4	0.0	0.0	1,874.4
• Sterile surgical catgut and similar suture materials	920.6	0.0	0.0	920.6
• Sterile lambaria and lambaria tents	0.0	0.0	0.0	0.0
• Sterile absorbable surgical hemostatics	2.7	0.0	0.0	2.7
• Specifying preparations used in x-ray examinations and diagnostic reagents designed to be administered to the patient	320.8	0.0	0.0	320.8
• Blood grouping reagents	448.7	0.0	0.0	448.7
• Dental cement and other dental fillings	167.7	0.0	0.0	167.7
• First-aid boxes and kits	11.9	0.0	0.0	11.9
3. Laboratory, hygienic and pharmaceutical glassware, whether or not graduated or calibrated; glass ampoules	1,334.9	857.6	0.0	2,192.5
• Ampoules	276.5	0.0	0.0	276.5
• Flasks	32.2	0.0	0.0	32.2
• Other laboratory, medical, surgical, dental and hygienic glassware, nes	1,026.2	857.6	0.0	1,883.8
4. Hygienic and pharmaceutical articles (including tests), of unhardened vulcanized rubber, with or without fittings of unhardened rubber	842.8	925.6	58.0	1,700.4
• Rubber bags for ice, hot water and oxygen	51.5	0.0	0.0	51.5
• Rubber droppers	78.4	0.0	0.0	78.4
• Bottle nipples, of unhardened vulcanized rubber	250.6	67.0	67.0	250.6
• Rubber syringes and bulbs thereof	0.0	0.0	0.0	0.0
• Other hygienic, medical or surgical articles of unhardened vulcanized rubber, nes	512.3	858.6	1.0	1,369.9
5. Orthopedic appliances, surgical belts, trusses and the like; splints and other fracture appliances; artificial limbs, eyes, teeth and other artificial parts of the body; appliances which are worn or carried in the body to compensate for a defect or disability (except hearing aids)	90.5	1,326.5	205.6	1,219.4
• Artificial teeth of all materials	9.8	447.2	181.9	273.1
• Artificial dentures and bridges of all materials	0.0	21.7	21.7	0.0
• Orthopedic shoes wholly or mainly of leather or composition leather	0.0	0.0	0.0	0.0
• Other orthopedic appliances, artificial parts of the body, fracture appliances, pacemakers and other appliances to compensate for a defect or disability, nes	80.7	857.6	0.0	946.3
6. Hygienic medical and surgical articles, whether enameled or not (bedpans, urinals, irrigators, instrument & catheter trays, pots & solution basin, infant baths, etc.)	0.0	857.6	0.0	857.6
• Hygienic, medical and surgical articles, of iron or steel	0.0	285.9	0.0	285.9
• Hygienic, medical and surgical articles, of copper	0.0	285.9	0.0	285.9
• Hygienic, medical and surgical articles, of aluminum	0.0	285.9	0.0	285.9
7. Hearing aids	19.6	0.0	0.0	19.6

	IMPORTS	LOCAL PRODUCTION	EXPORTS	LOCAL CONSUMPTION
	542.9	38.5	0.9	600.5

C. FURNITURE

1. Medical, dental, surgical and veterinary furniture (operating tables, hospital beds with mechanical fittings); dentist's and similar chairs with elevating, rotating or reclining movements; parts of the foregoing articles

- o Medical, dental, surgical & veterinary furniture (e.g. operating tables, hospital beds, medicine cabinets), of wood
- o Identifiable parts of medical, dental, surgical or veterinary furniture, of wood
- o Medical, dental, surgical & veterinary furniture (e.g. operating tables, hospital beds, medicine cabinets), of metal
- o Identifiable parts of medical, dental, surgical or veterinary furniture, of metal
- o Medical, dental, surgical & veterinary furniture (e.g. operating tables, hospital beds, medicine cabinets), of plastic or other materials
- o Identifiable parts of medical, dental, surgical or veterinary furniture, of plastic or other materials
- o Dentist's and similar chairs with mechanical, elevating, rotating or reclining movements, of wood
- o Identifiable parts of dentist's and similar chairs with mechanical, elevating, rotating or reclining movements, of wood
- o Dentist's and similar chairs with mechanical, elevating, rotating or reclining movements, of metal or other materials except wood

2. Invalid carriages, fitted with means of mechanical propulsion, whether motorized or not or otherwise mechanically propelled

- o Invalid carriages, fitted with means of mechanical propulsion, whether motorized or not
- o Invalid carriages, other than motorized or not or otherwise mechanically propelled

T O T A L

7.8	27.6	0.0	35.4
0.5	21.0	0.0	22.3
7.3	5.0	0.0	13.1

20,988.8	7,356.0	336.9	28,681.7
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Size-of-Market Forecasts From 1988 to 2000, In Thousand US Dollars

DIVISION / GROUP / COMMODITY CODE	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
A. EQUIPMENT & INSTRUMENTS														
1. Medical, surgical, veterinary, incl. ophthalmic	12,791.8	13,047.6	13,308.6	13,574.8	13,982.0	14,401.5	14,833.5	15,278.5	15,736.9	16,523.7	17,349.9	18,217.4	19,128.3	20,084.7
872-02-01	6.2	6.3	6.5	6.6	6.8	7.0	7.2	7.4	7.6	8.0	8.4	8.8	9.3	9.7
872-02-03	27.7	28.3	28.8	29.4	30.3	31.2	32.1	33.1	34.1	35.8	37.6	39.4	41.4	43.5
872-02-04	41.1	42.3	43.6	44.8	46.8	48.8	50.9	53.0	55.2	58.9	62.9	67.0	71.4	75.9
872-02-05	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
872-02-09	8,591.9	8,743.7	8,939.0	9,117.8	9,391.3	9,673.1	9,963.1	10,262.2	10,570.0	11,098.5	11,653.4	12,236.1	12,847.9	13,490.3
872-02-02	133.5	136.2	138.9	141.7	145.9	150.3	154.8	159.5	164.2	172.4	181.1	190.1	199.6	209.6
2. Dental	609.5	621.7	634.1	646.8	666.2	686.2	706.8	728.0	749.8	787.3	826.7	868.0	911.4	957.0
872-01-01	13.6	13.9	14.1	14.4	14.9	15.3	15.8	16.2	16.7	17.6	18.4	19.4	20.3	21.4
872-01-02	595.9	607.8	620.0	632.4	651.3	670.9	691.0	711.7	733.1	769.7	808.2	848.6	891.1	935.6
3. Mechano-therapy	425.3	433.8	442.5	451.3	464.9	478.8	493.2	508.0	523.2	549.4	576.8	605.7	636.0	667.8
872-03-01	81.7	83.3	85.0	86.7	89.3	92.0	94.7	97.6	100.5	105.5	110.8	116.4	122.2	128.3
872-03-03	50.4	51.4	52.4	53.5	55.1	56.7	58.4	60.2	62.0	65.1	68.4	71.8	75.4	79.1
872-03-04	253.1	258.2	263.3	268.6	276.6	284.9	293.5	302.3	311.4	326.9	343.3	360.5	378.5	397.4
872-03-05	40.1	40.9	41.7	42.6	43.8	45.1	46.5	47.9	49.3	51.8	54.4	57.1	60.0	63.0
4. Electro-medical	2,485.7	2,739.4	2,794.2	2,850.1	2,935.6	3,023.7	3,114.4	3,207.0	3,304.0	3,469.2	3,642.7	3,824.8	4,016.1	4,216.9
774-11-00	31.4	32.0	32.7	33.3	34.3	35.4	36.4	37.5	38.6	40.6	42.6	44.7	47.0	49.3
774-12-00	44.4	45.7	47.0	48.3	50.4	52.5	54.7	57.2	59.2	63.2	67.3	71.7	76.3	81.1
774-22-00	2,273.5	2,319.0	2,365.3	2,412.7	2,485.0	2,559.6	2,636.4	2,715.5	2,796.9	2,936.8	3,083.6	3,237.0	3,399.7	3,569.7
774-21-00	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
774-23-00	316.4	322.7	329.2	335.8	345.8	356.2	366.9	377.9	389.2	408.7	429.1	450.6	473.1	496.8
5. Clinical thermometer (874.54-01)	250.9	255.9	261.0	266.3	274.2	282.5	290.9	299.7	308.7	324.1	340.3	357.3	375.2	393.9
6. Mobile radiological units (785.23-00)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

DIVISION/COMMODITY

8. SUPPLIES

1. Wadding, gauze, etc.

541.91-01
541.91-02
541.91-03
541.91-04
541.91-05
541.91-06
541.91-07
541.91-08

2. Pharmaceutical goods

5541.99-01
5541.99-02
5541.99-03
5541.99-04
5541.99-05
5541.99-06
5541.99-07

3. Lab./ medical glassware

665.81-01
665.81-02
665.81-09

4. Articles of rubber

628.10-01
628.10-02
628.10-03
628.10-04
628.10-09

5. Orthopedic

899.62-01
899.62-02
899.62-03
899.62-09

6. Articles of metal

697.51-01
697.52-01
697.53-01

7. Hearing aids (899.61-00)

14,618.4	14,910.8	15,209.0	15,513.2	15,970.6	16,457.9	16,951.7	17,460.2	17,984.0	18,083.2	19,827.4	20,810.7	21,859.7	22,952.7
6,754.5	6,889.6	7,027.4	7,167.9	7,303.0	7,404.5	7,832.6	8,067.6	8,309.6	8,725.1	9,161.3	9,619.4	10,100.4	10,405.4
999.3	927.5	946.0	965.0	993.9	1,023.7	1,054.4	1,086.1	1,118.6	1,174.6	1,233.3	1,295.0	1,359.7	1,427.7
15.9	16.2	16.5	16.9	17.4	17.9	18.4	19.0	19.6	20.5	21.6	22.6	23.8	25.0
1,376.7	1,404.2	1,432.3	1,461.0	1,504.0	1,549.9	1,596.4	1,644.3	1,693.7	1,776.3	1,867.3	1,960.6	2,058.7	2,161.6
980.1	999.7	1,019.7	1,040.1	1,071.3	1,103.4	1,136.5	1,170.6	1,205.7	1,246.0	1,279.3	1,305.8	1,465.6	1,538.9
2,742.4	2,817.6	2,874.0	2,931.5	3,019.4	3,110.0	3,203.3	3,299.4	3,398.4	3,548.3	3,746.7	3,934.1	4,130.8	4,337.3
65.2	66.5	67.8	69.2	71.3	73.4	75.6	77.9	80.2	84.2	88.4	92.9	97.5	102.4
644.9	657.8	671.0	684.4	704.9	726.1	747.8	770.3	793.4	833.0	874.7	910.4	964.4	1,012.6
0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1,074.4	1,911.9	1,950.1	1,989.1	2,048.8	2,110.3	2,173.6	2,238.8	2,305.9	2,421.2	2,542.3	2,669.4	2,802.9	2,943.0
920.6	939.0	957.8	976.9	1,006.3	1,036.4	1,067.5	1,099.6	1,132.6	1,189.2	1,248.6	1,311.1	1,376.6	1,445.5
0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2.7	2.8	2.8	2.9	3.0	3.0	3.1	3.2	3.3	3.5	3.7	3.8	4.0	4.2
370.8	327.2	333.8	340.4	350.6	361.2	372.0	383.2	394.7	414.4	435.1	456.9	479.7	503.7
448.7	457.7	466.8	476.2	490.4	505.2	520.3	535.9	552.0	578.6	608.9	639.0	670.5	704.5
169.7	173.1	176.6	180.1	185.5	191.1	196.8	202.7	208.8	218.2	230.2	241.7	253.8	266.4
11.9	12.1	12.4	12.6	13.0	13.4	13.8	14.2	14.6	15.4	16.1	16.9	17.8	18.7
2,192.5	2,236.4	2,281.1	2,326.7	2,396.5	2,468.4	2,542.4	2,618.7	2,697.3	2,832.1	2,973.8	3,122.4	3,278.6	3,442.5
276.5	282.0	287.7	293.4	302.2	311.3	320.6	330.3	340.2	357.2	375.0	393.8	413.5	434.1
32.2	32.8	33.5	34.2	35.2	36.3	37.3	38.5	39.6	41.6	43.7	45.9	48.2	50.6
1,083.8	1,921.5	1,959.9	1,999.1	2,059.1	2,120.8	2,184.5	2,250.0	2,317.5	2,433.4	2,555.1	2,682.8	2,816.9	2,957.8
1,700.4	1,734.4	1,769.1	1,804.5	1,850.6	1,914.4	1,971.8	2,031.0	2,091.9	2,196.5	2,306.3	2,421.6	2,542.7	2,669.8
51.5	52.5	53.6	54.7	56.3	58.0	59.7	61.5	63.4	66.5	69.9	73.3	77.0	80.9
28.4	29.0	29.5	30.1	31.0	32.0	32.9	33.9	34.9	36.7	38.5	40.4	42.5	44.6
250.4	255.6	260.7	265.9	273.9	282.1	290.6	299.3	308.3	323.7	339.9	356.9	374.7	393.5
0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1,369.9	1,397.3	1,425.2	1,453.7	1,497.4	1,542.3	1,588.6	1,636.2	1,685.3	1,769.6	1,858.0	1,950.9	2,048.5	2,150.9
1,219.4	1,243.8	1,268.7	1,294.0	1,332.9	1,372.8	1,414.0	1,456.5	1,500.1	1,575.2	1,653.9	1,736.6	1,823.4	1,914.6
273.1	278.6	284.1	289.8	298.5	307.5	316.7	326.2	336.0	352.8	370.4	388.9	408.4	428.0
0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
946.3	963.2	984.5	1,004.2	1,034.3	1,065.4	1,097.3	1,130.3	1,164.2	1,222.4	1,283.5	1,347.7	1,415.1	1,485.8
857.6	874.8	892.2	910.1	937.4	965.5	994.5	1,024.3	1,055.0	1,107.8	1,163.2	1,221.3	1,282.4	1,346.5
285.9	291.6	297.4	303.4	312.5	321.8	331.5	341.4	351.7	369.3	387.7	407.1	427.5	448.8
285.9	291.6	297.4	303.4	312.5	321.8	331.5	341.4	351.7	369.3	387.7	407.1	427.5	448.8
19.6	20.0	20.4	20.8	21.4	22.1	22.7	23.4	24.1	25.3	26.6	27.9	29.3	30.8

DIVISION/COMMODITY

C. FURNITURE

1. Medical, dental, etc.

821.21-01
821.21-02
821.21-03
821.21-04
821.21-05
821.21-06
821.21-09
821.21-11
821.21-12

	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
600.5	612.5	624.0	637.3	656.4	676.1	696.3	717.2	738.0	758.7	775.7	814.5	855.2	890.0	942.9
565.1	576.4	587.9	599.7	617.7	636.2	655.3	675.0	695.2	715.0	730.0	766.5	804.8	845.0	887.3
10.0	10.2	10.4	10.6	10.9	11.3	11.6	11.9	12.3	12.9	13.6	14.2	15.0	15.7	16.5
0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
500.1	510.1	520.3	530.7	546.6	563.0	579.9	597.3	615.2	633.6	646.0	678.3	712.2	747.0	785.2
0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
16.9	17.2	17.6	17.9	18.5	19.0	19.6	20.2	20.8	21.8	22.9	24.1	25.3	26.5	27.5
0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
30.1	30.9	31.6	32.4	33.2	34.0	34.8	35.6	36.4	37.2	38.0	38.8	39.6	40.4	41.2

2. Invalid carriages

785.31-00
785.31-20

35.4	36.1	36.8	37.6	38.7	39.9	41.1	42.3	43.6	45.2	48.0	50.4	52.9	55.6	58.3
22.3	22.7	23.2	23.7	24.4	25.1	25.8	26.6	27.4	28.0	30.2	31.0	33.3	35.0	36.6
13.1	13.4	13.6	13.9	14.3	14.7	15.2	15.6	16.1	16.9	17.8	18.7	19.6	20.6	21.6

T O T A L

20,010.7	20,570.9	20,142.3	20,725.2	20,616.9	21,535.4	22,401.5	23,456.0	24,459.4	25,102.6	27,491.7	29,491.3	31,005.6	33,000.2	35,000.2
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